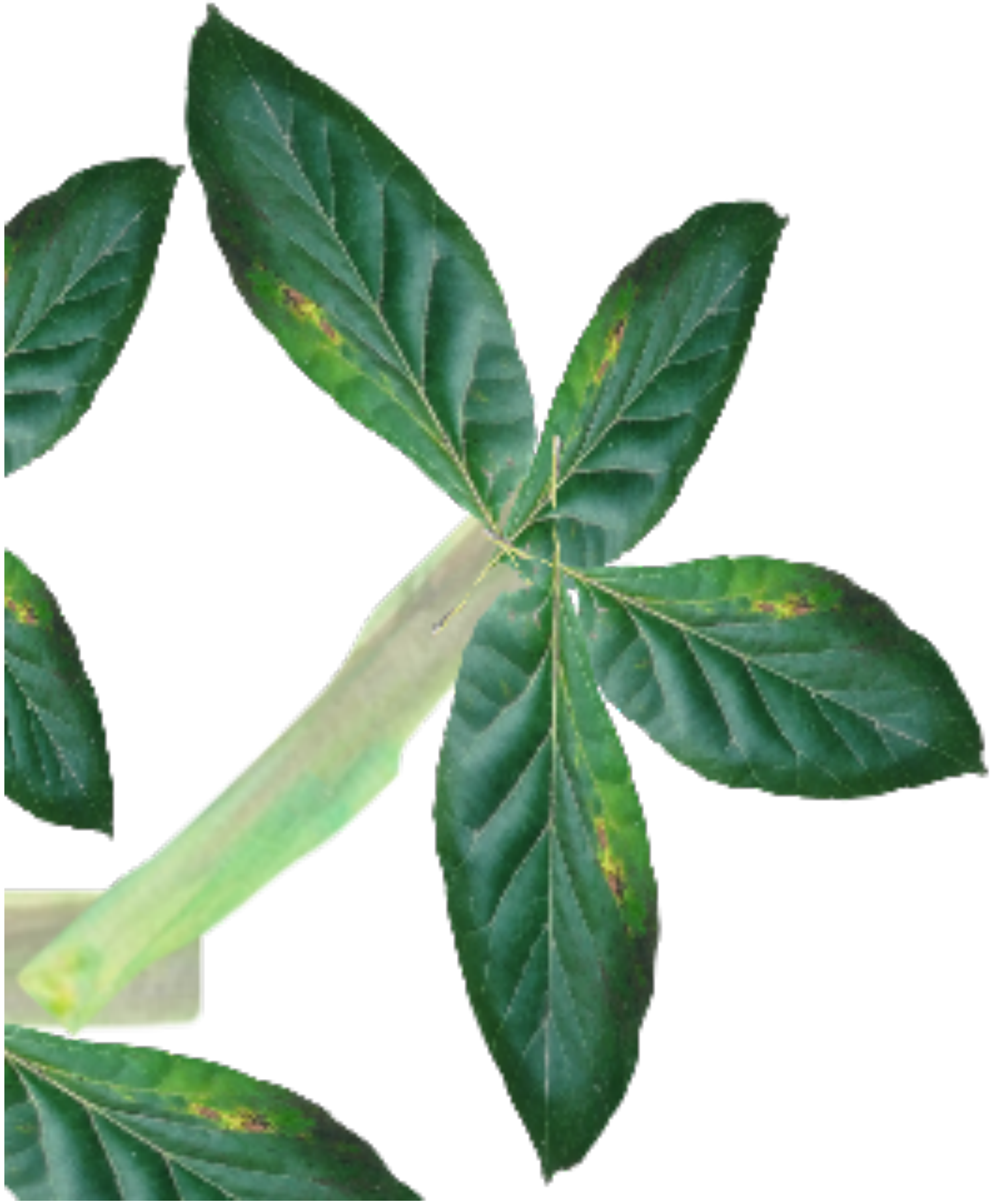
Dr. Frank Appiah

Making Digital Tree

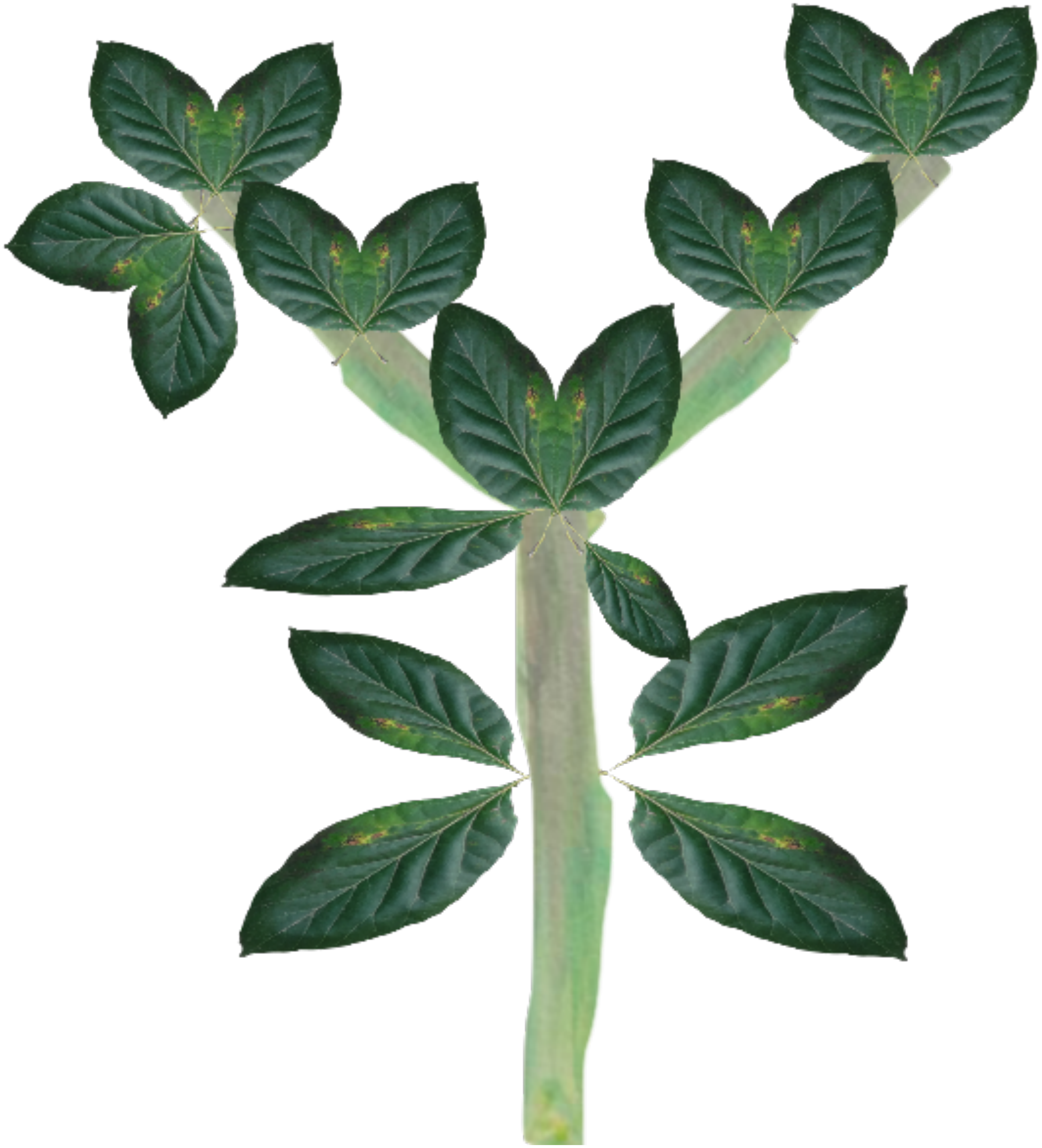


2D Tree

In designing a game dubbed as “ApiaaCross”. It became necessary to make 2d digital trees to render a forest landscape through which the player will walk-through.

Tree is a Biology terminology. A tree is a very tall plant that has branches and a thick woody trunk. Trees can be flowering plants such as pine trees, mango trees and more.

The focus of this work presents some sort of flowering plants in much tree like way.



Tree Art

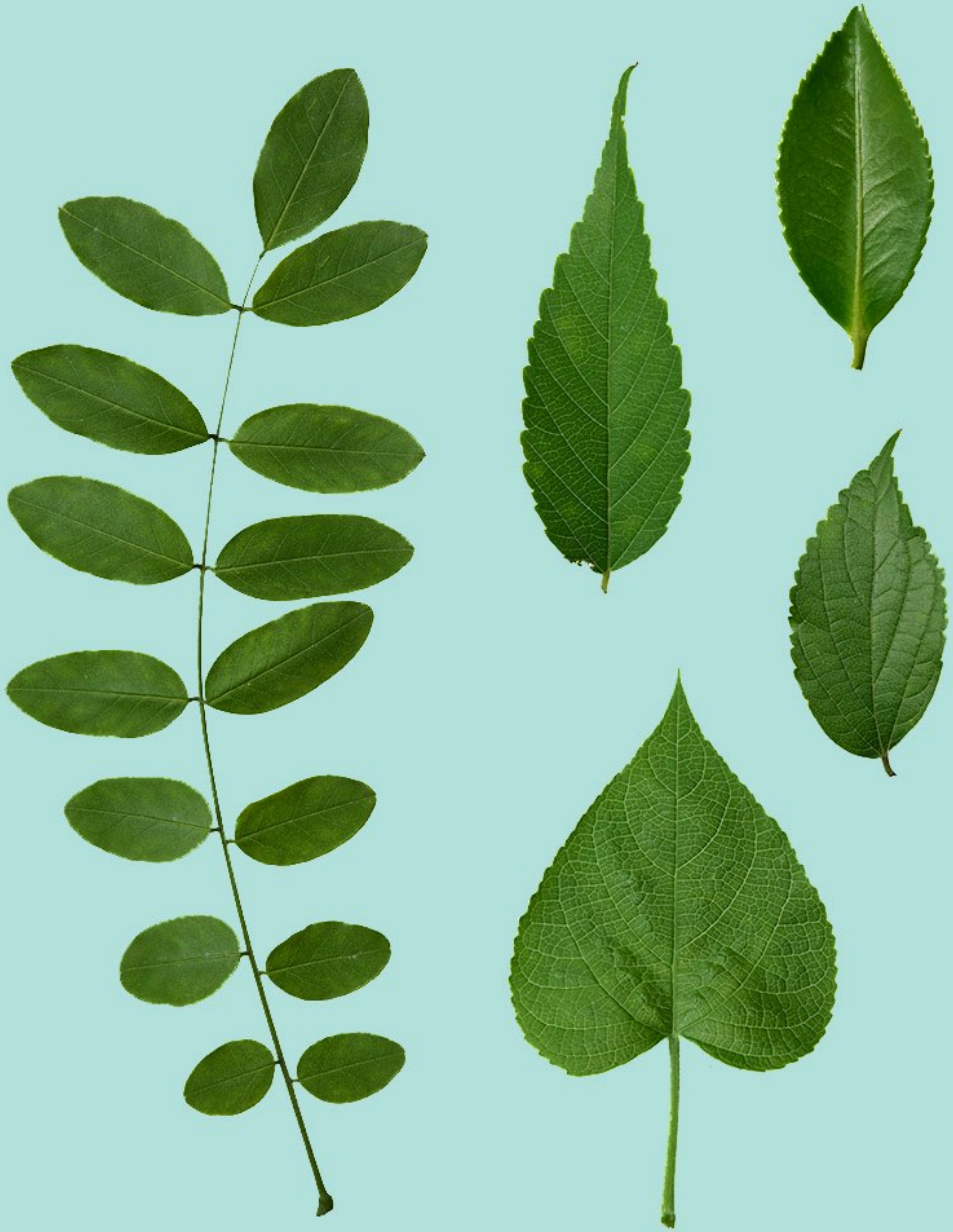
2D Digital Making

Picture on Leafs.

Pictures of Trees

Filters on Tree Formations

Pictures of TreeMap



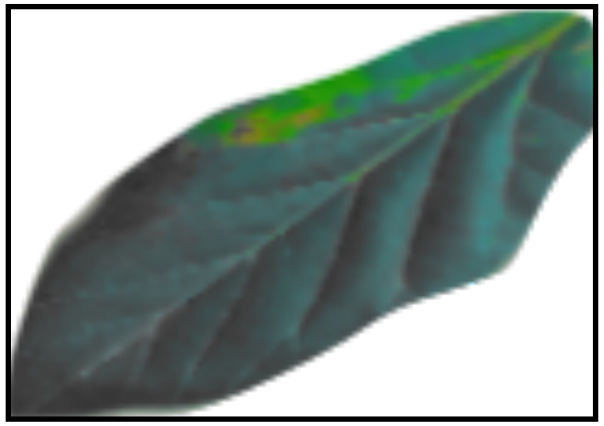
Picture on Leafs.

1

2

This is a natural leaf captured by the hands of photographic camera as mechanism to achieve realism.

3



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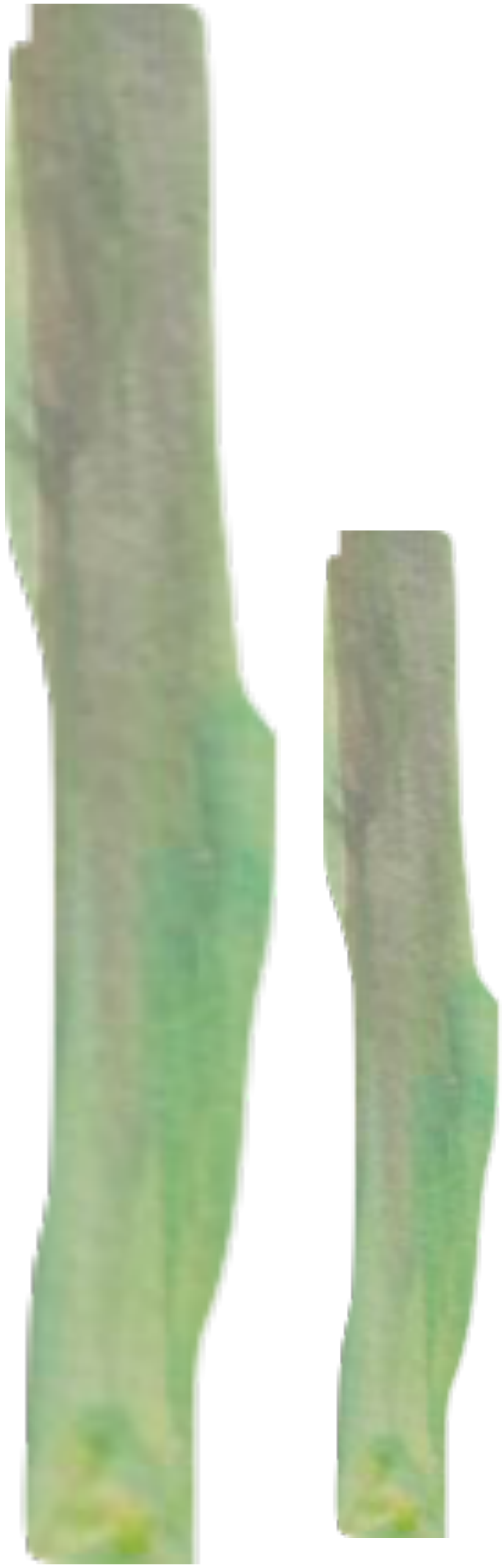
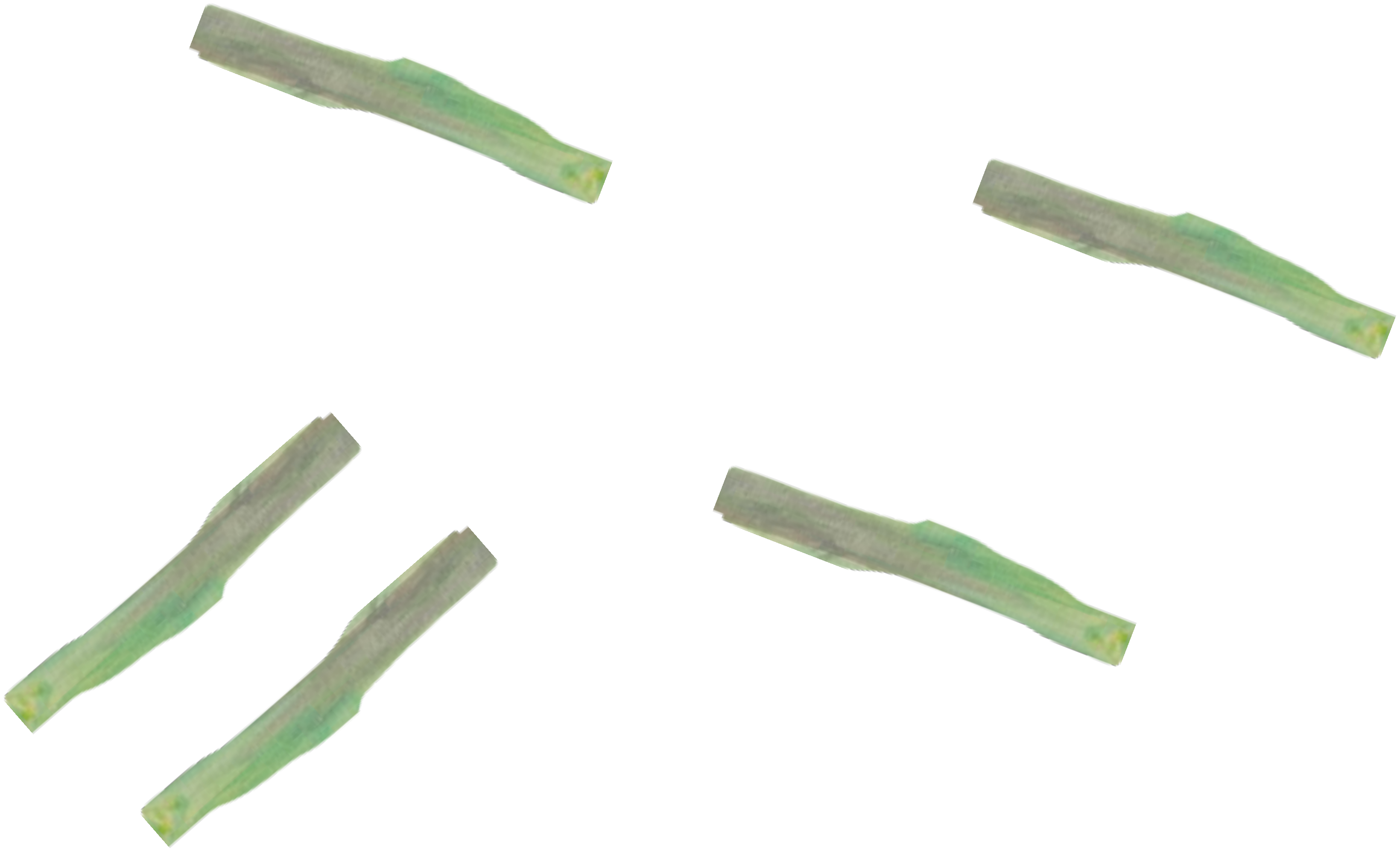
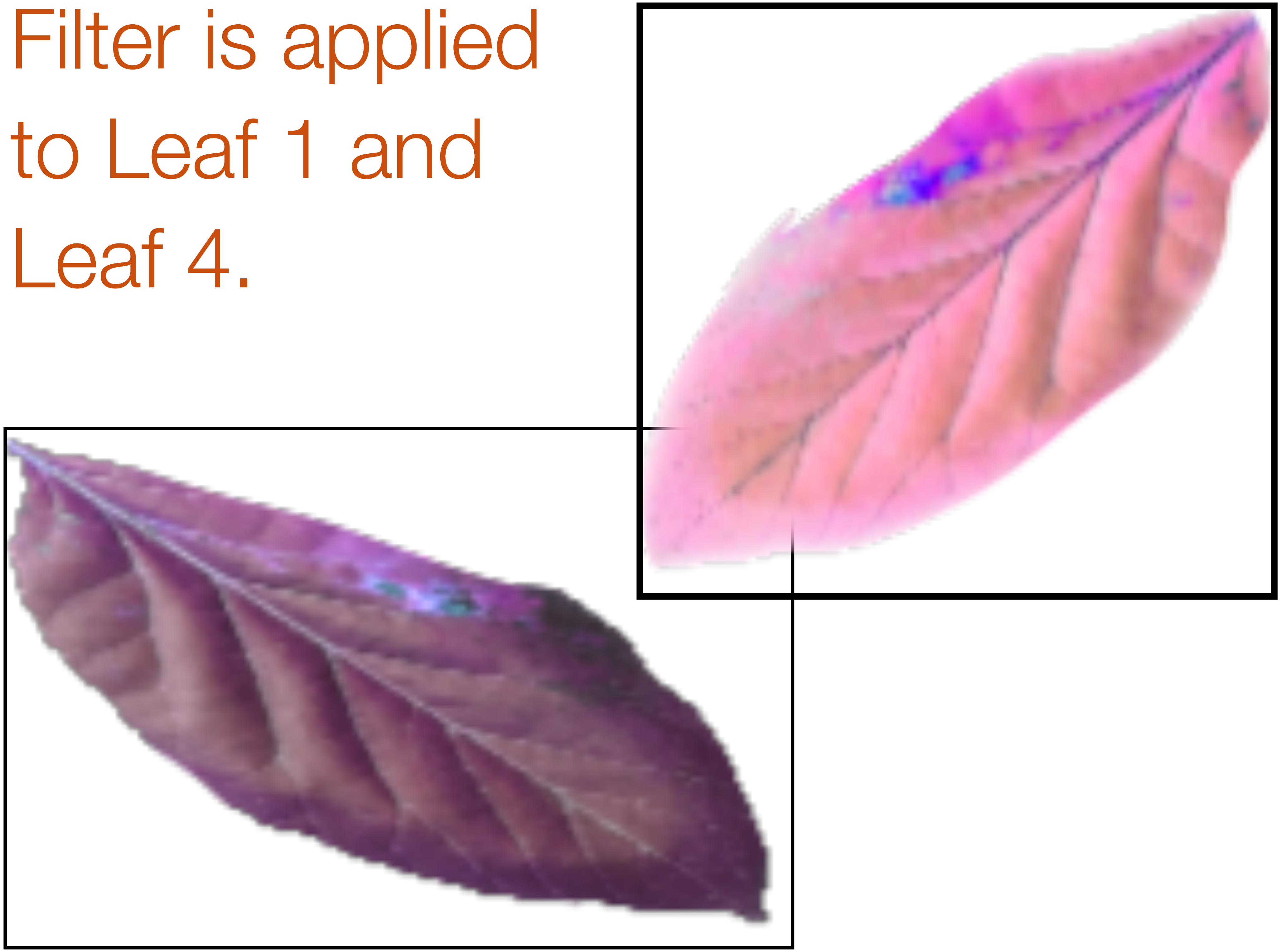


Trunk of Tree.

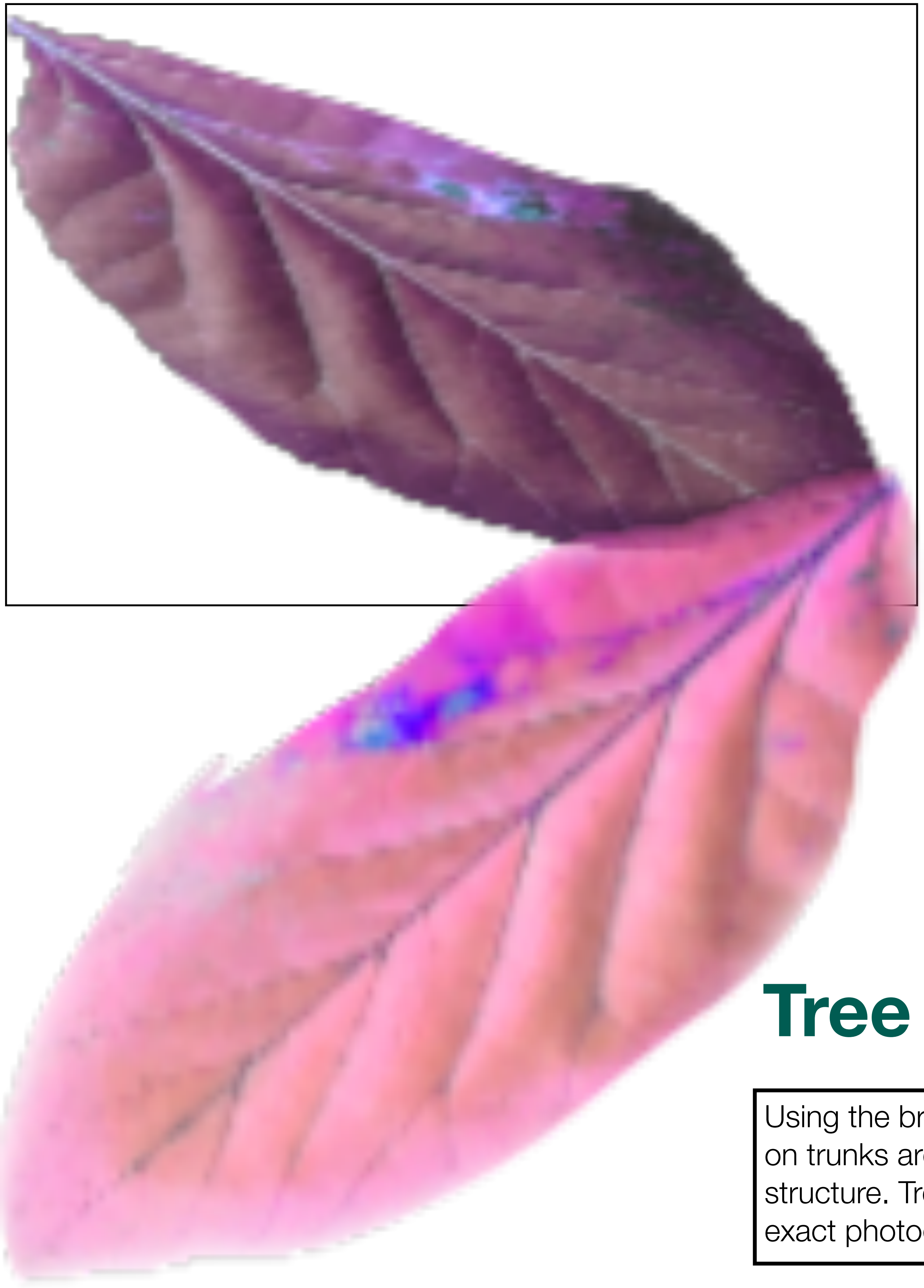
Branch of Tree.



Filter is applied to Leaf 1 and Leaf 4.

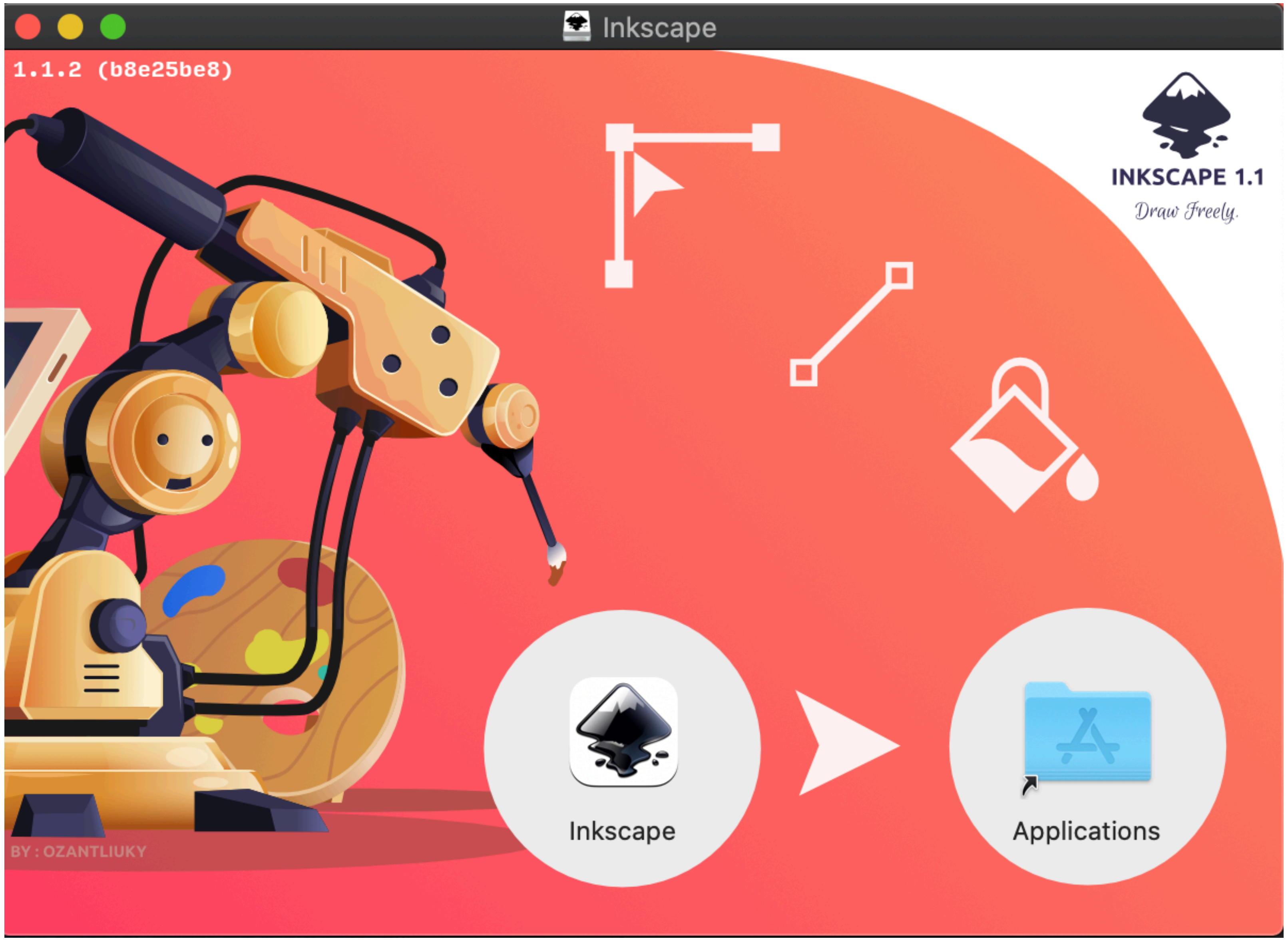


Pictures
of
Trees.



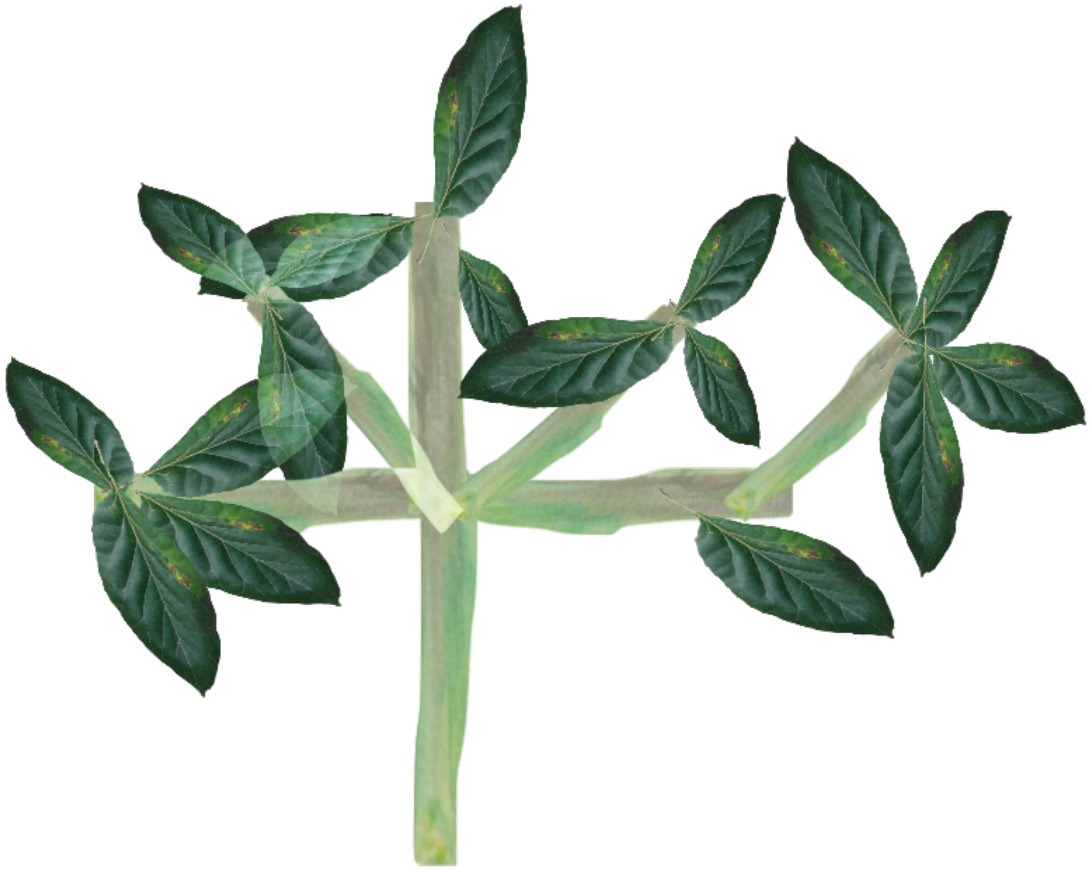
Tree Formation

Using the branches and leafs, mostly V shape branches on trunks are arranged to the best of natural tree structure. Trees as digital as it seems come alive with an exact photographic leaf from a home plant.

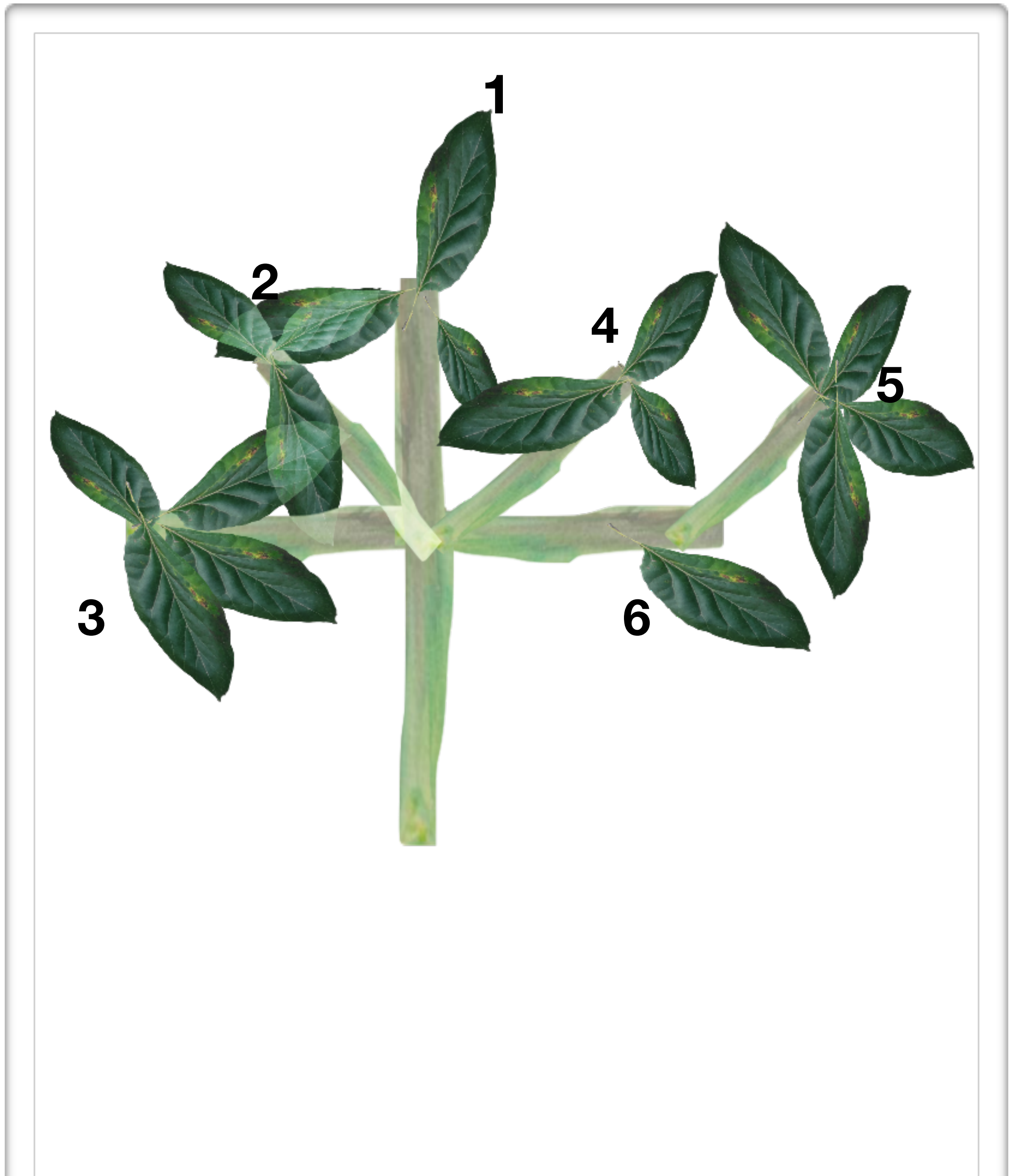

Inkscape
1.1.2 (b8e25be8)
INKSCAPE 1.1
Draw Freely.
BY : OZANTLIUKY
Inkscape
Applications

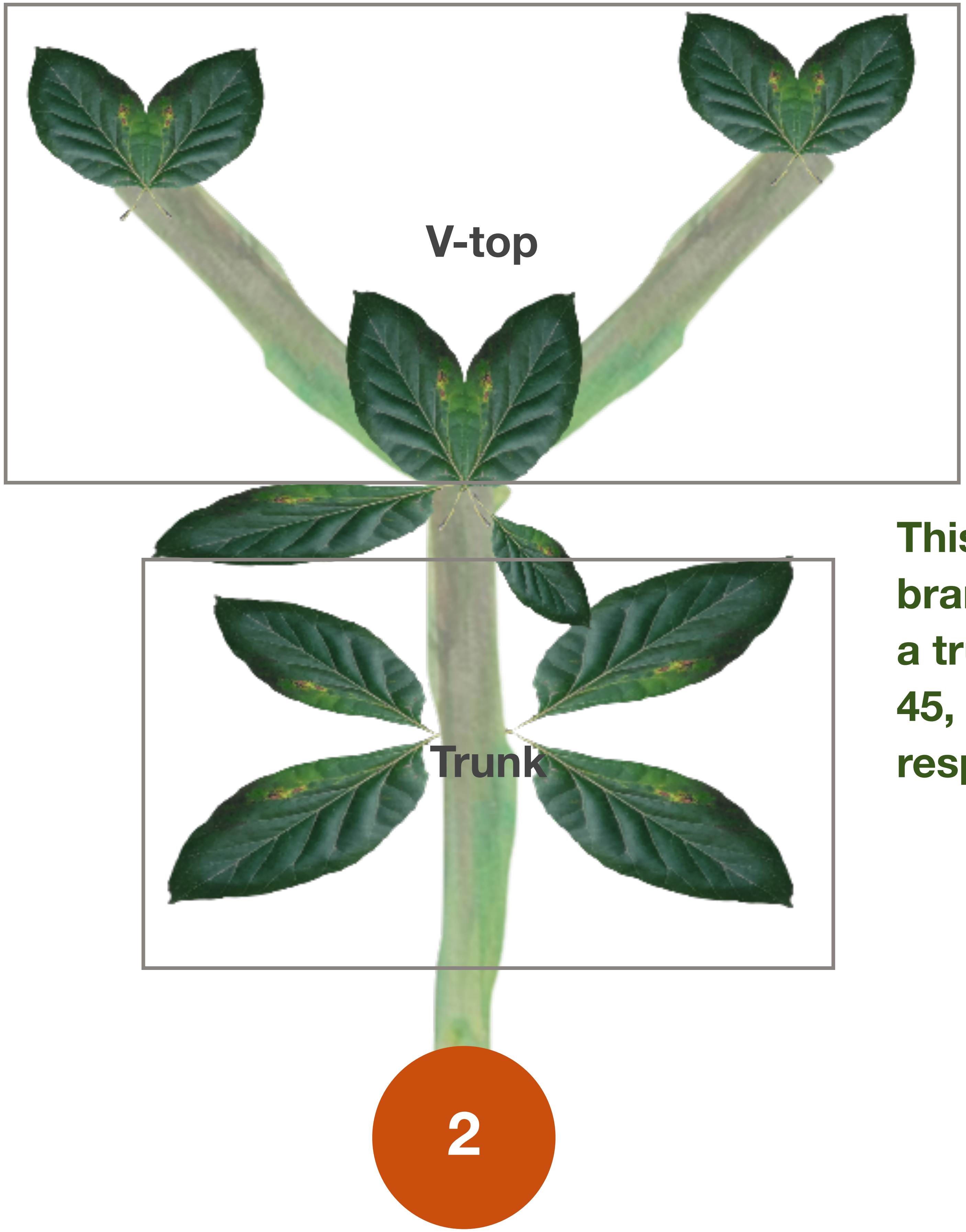
Inkscape was used to do the free formation process.

A look at the first tree. Mostly three to four leafs are arranged at 180 degree on rotation at five branch ends. The sixth has only one leaf.

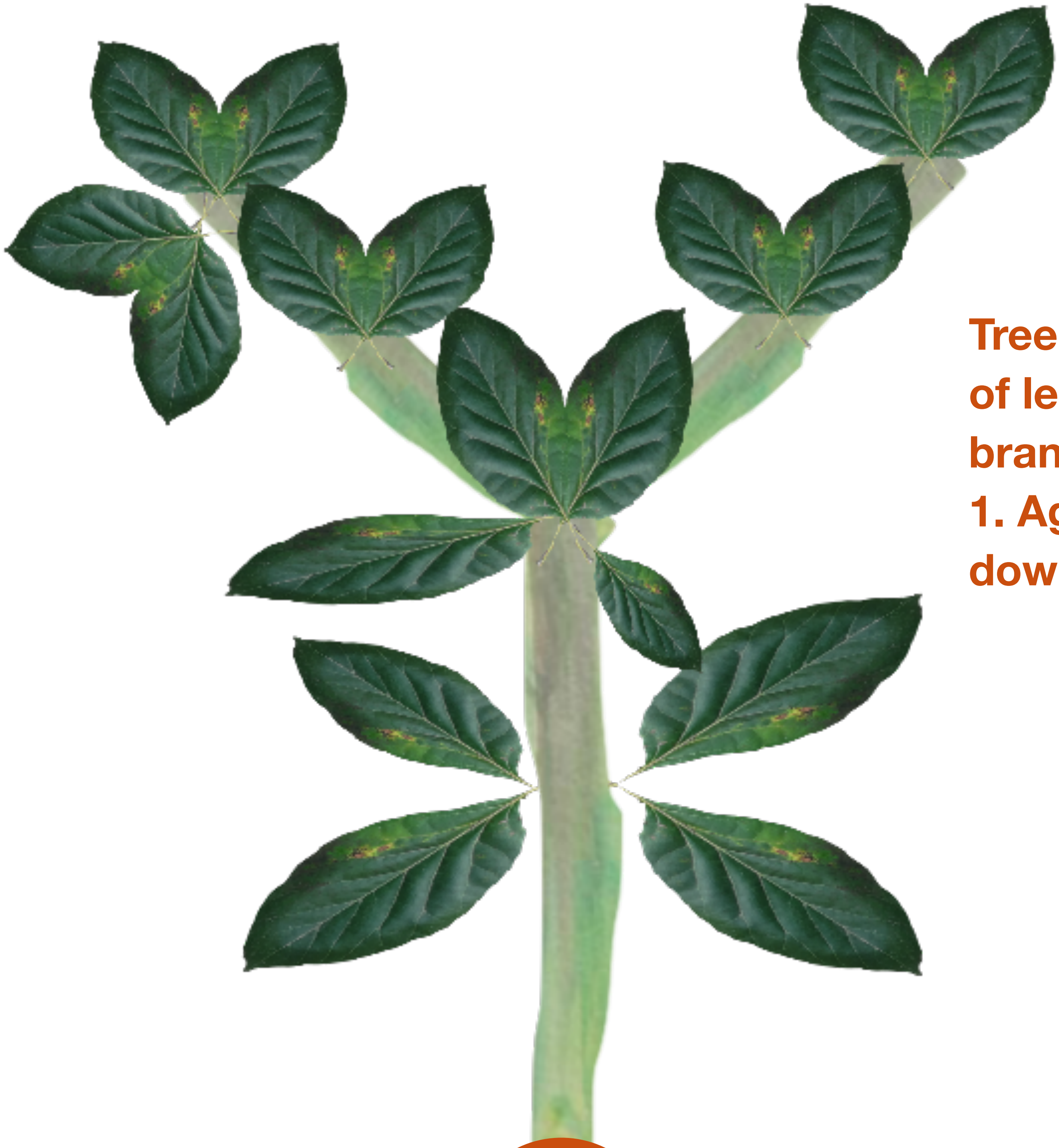


1



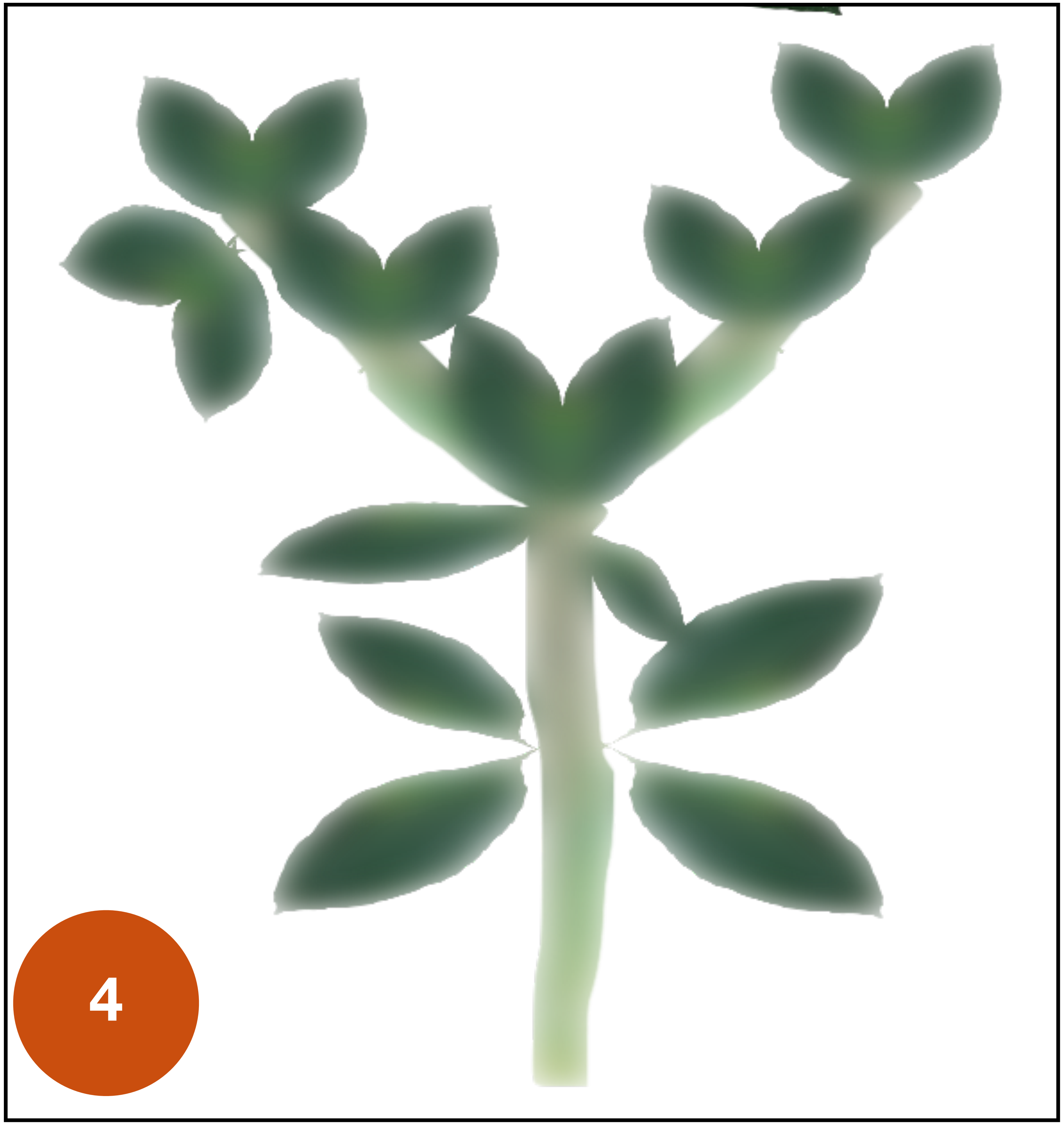


This tree is a pair of leafs V-top branch on v-ends and v-base. With a trunk with four leafs arranged at 45, 135, 225 and 315 degrees respectively.



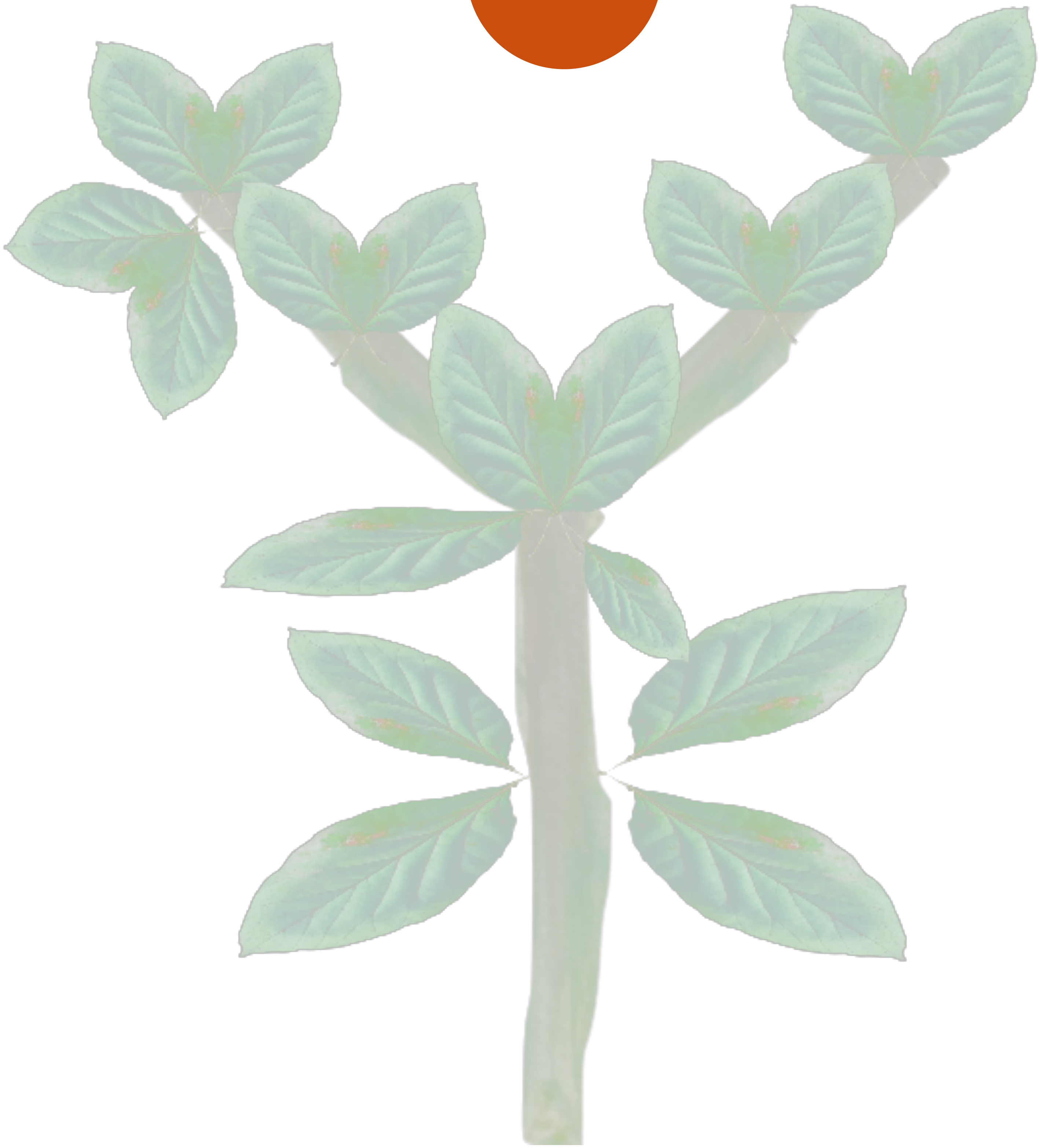
3

Tree 2 is made to have more pair of leafs, one just under V-top branch end 1 and away from end 1. Again at branch end 2, a little down the branch.

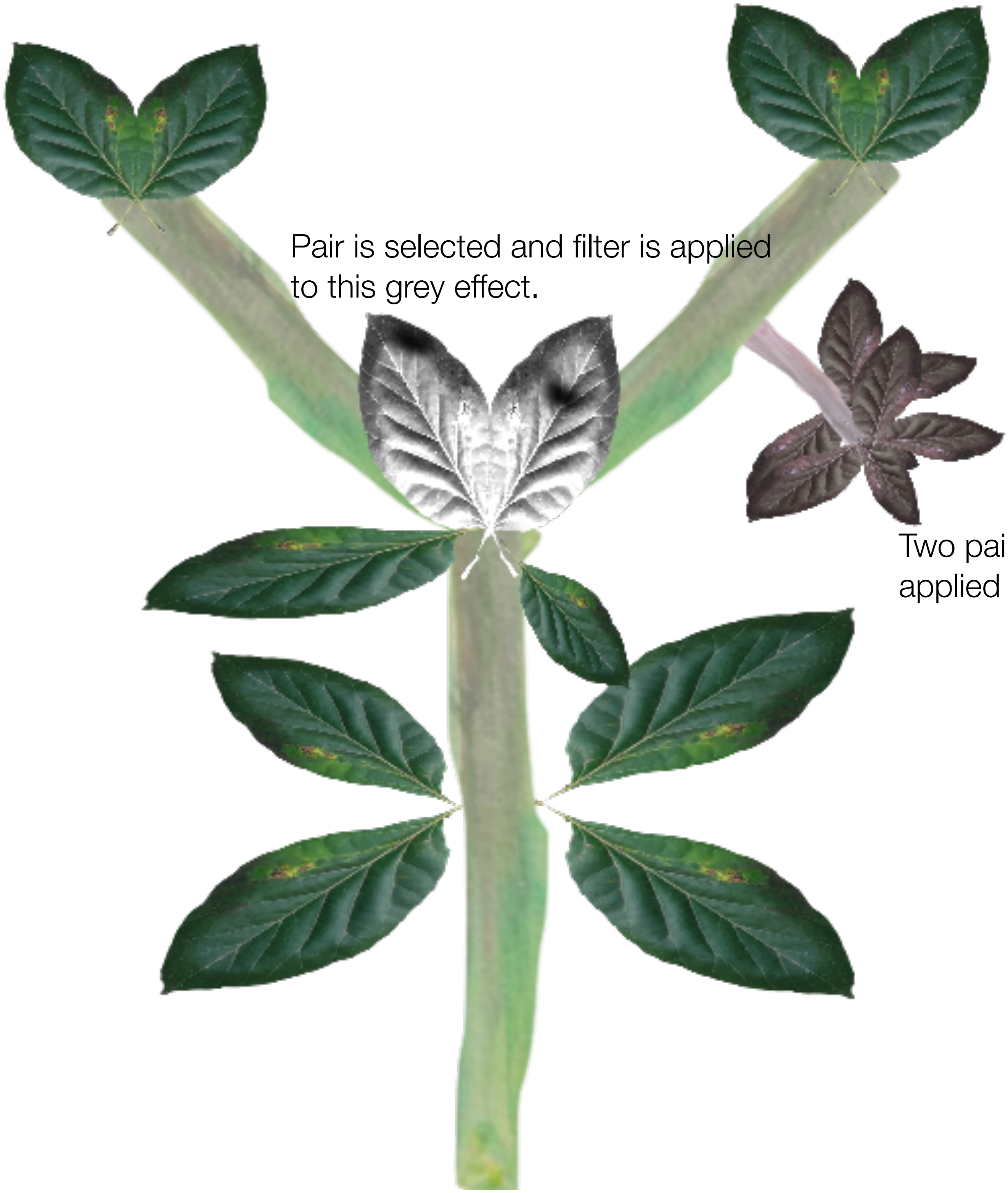


Tree 3 is blurred on filtering out the veins of the leafs. It makes the leafs loose its texture and realistic nature to a new blurring form of tree structure.

5

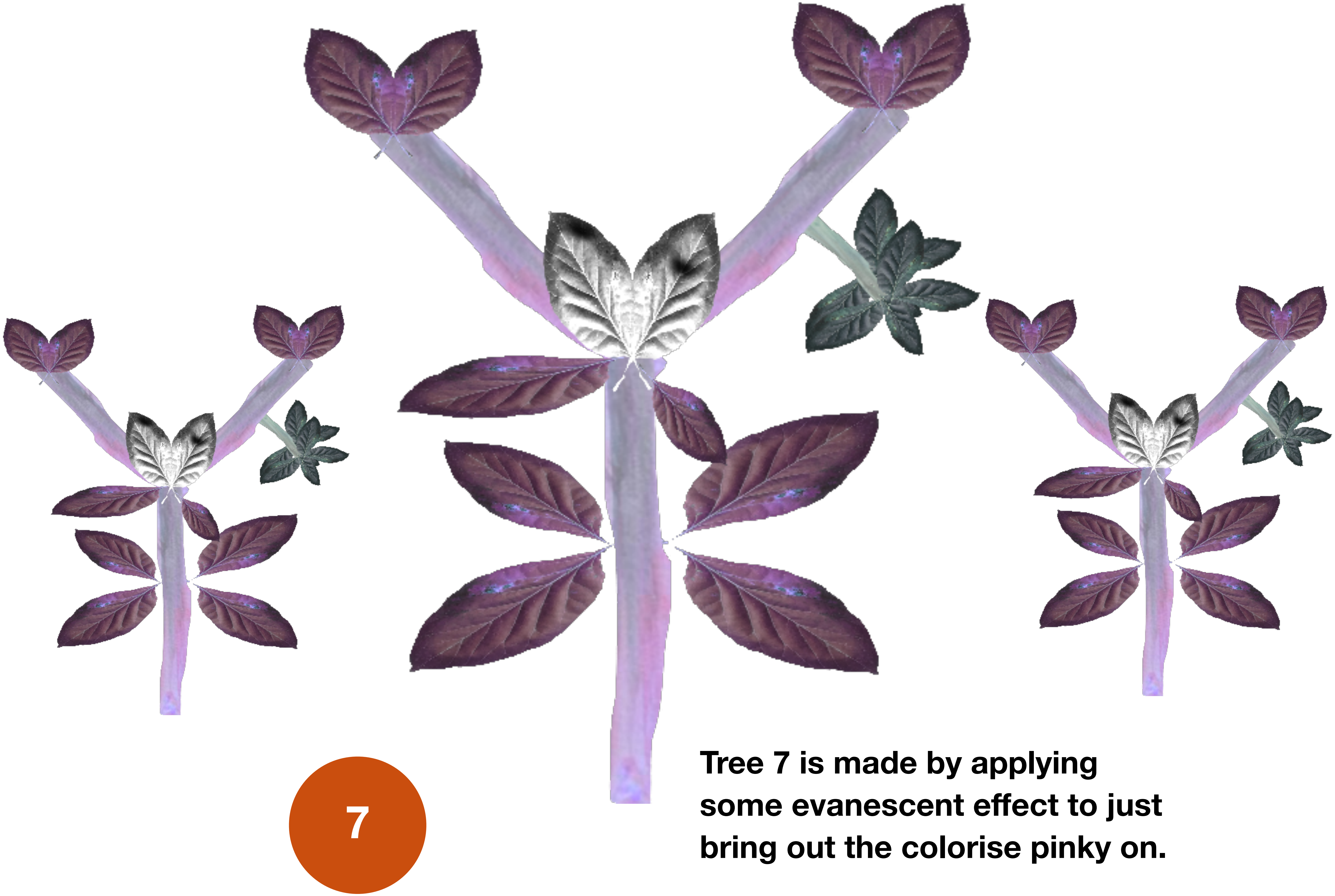


6



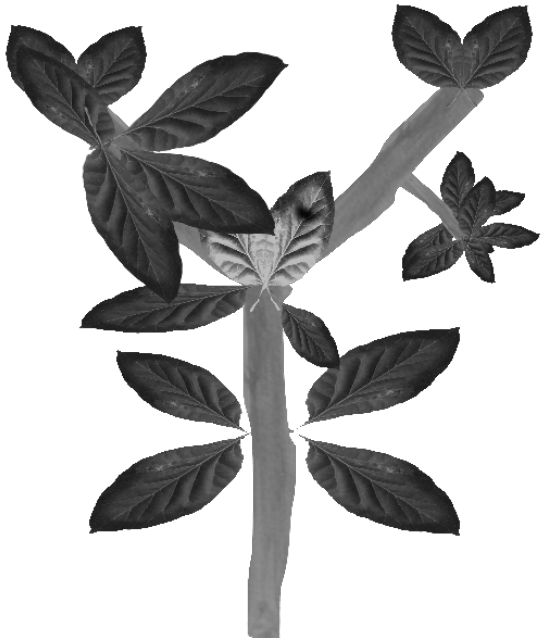
Pair is selected and filter is applied to this grey effect.

Two pair are selected and filter is applied to this dark effect.

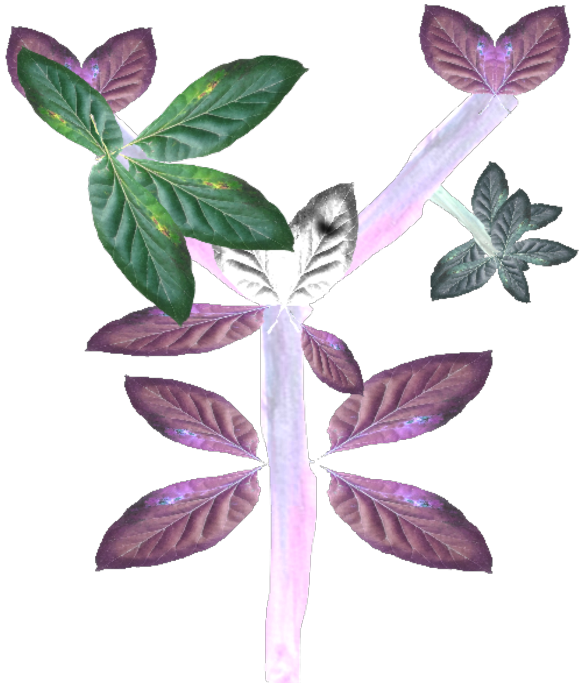


7

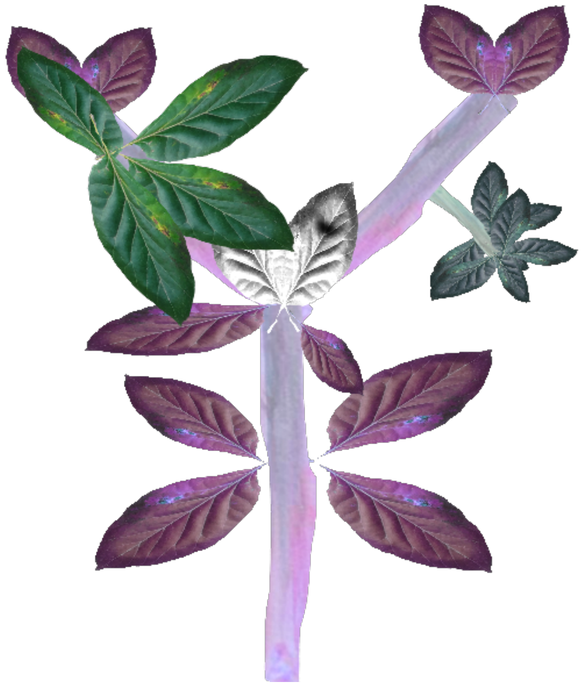
Tree 7 is made by applying some evanescent effect to just bring out the colorise pinky on.



Exposure=-1 | Saturation=-1



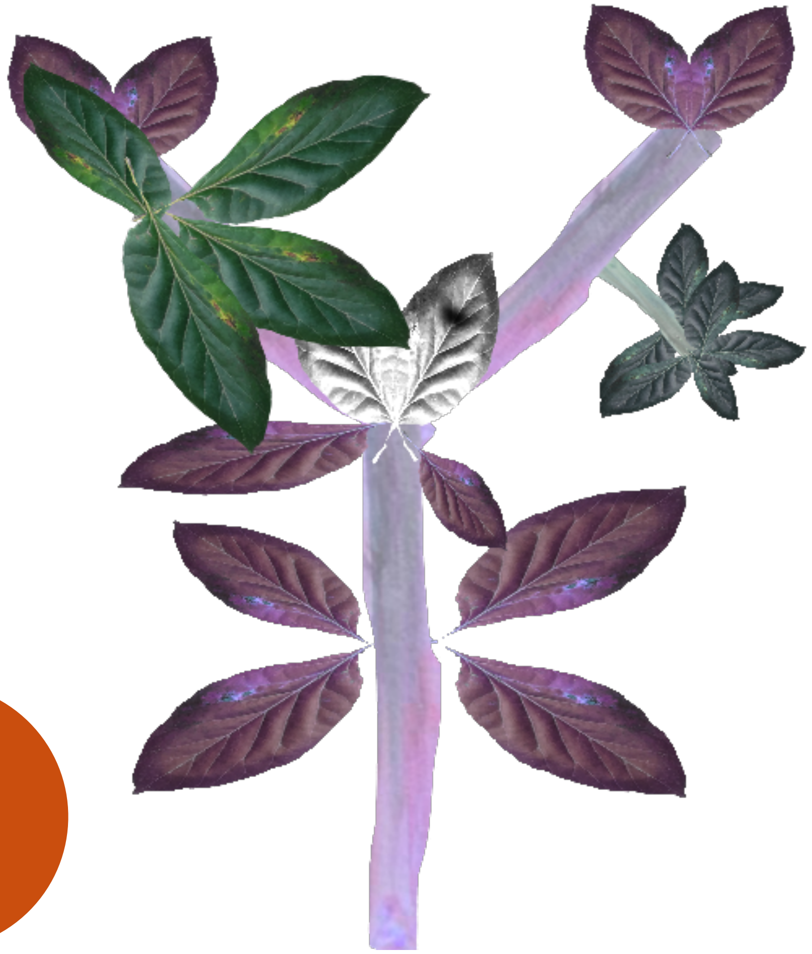
Exposure=1.0



Enhance

Exposure-Saturation-Enhance

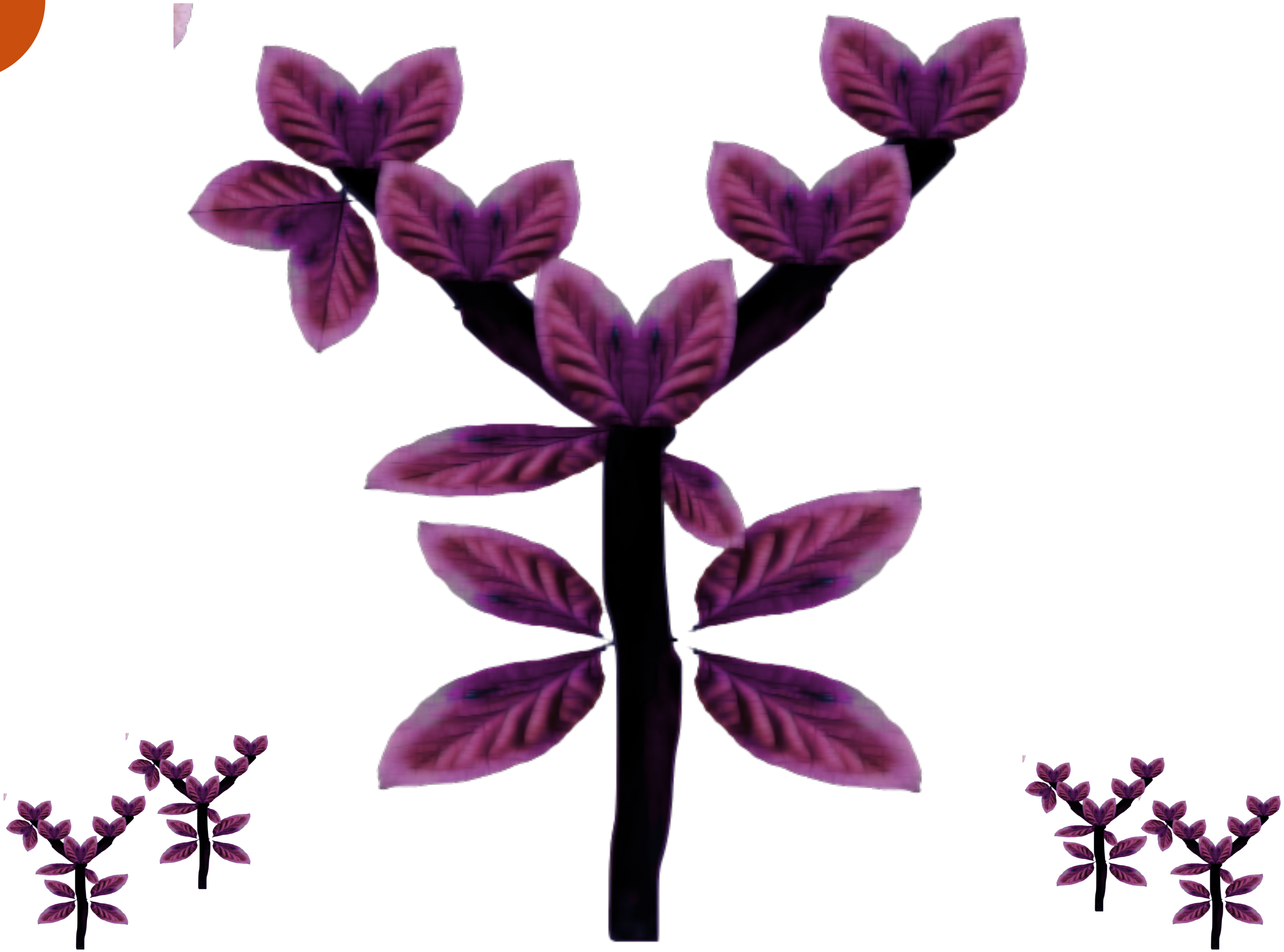
This image function has maximum value of 1 to minimum value of 0. It is still an XOR colour function but named to such above. Now both exposure and saturation values of -1 gives a more dark tree in grey blackish sense. Exposure at the maximum value gives a more magic glow-sparkle effect to the tree. Enhancement of the tree gives a little light to the tree than before and effect is much noticeable.

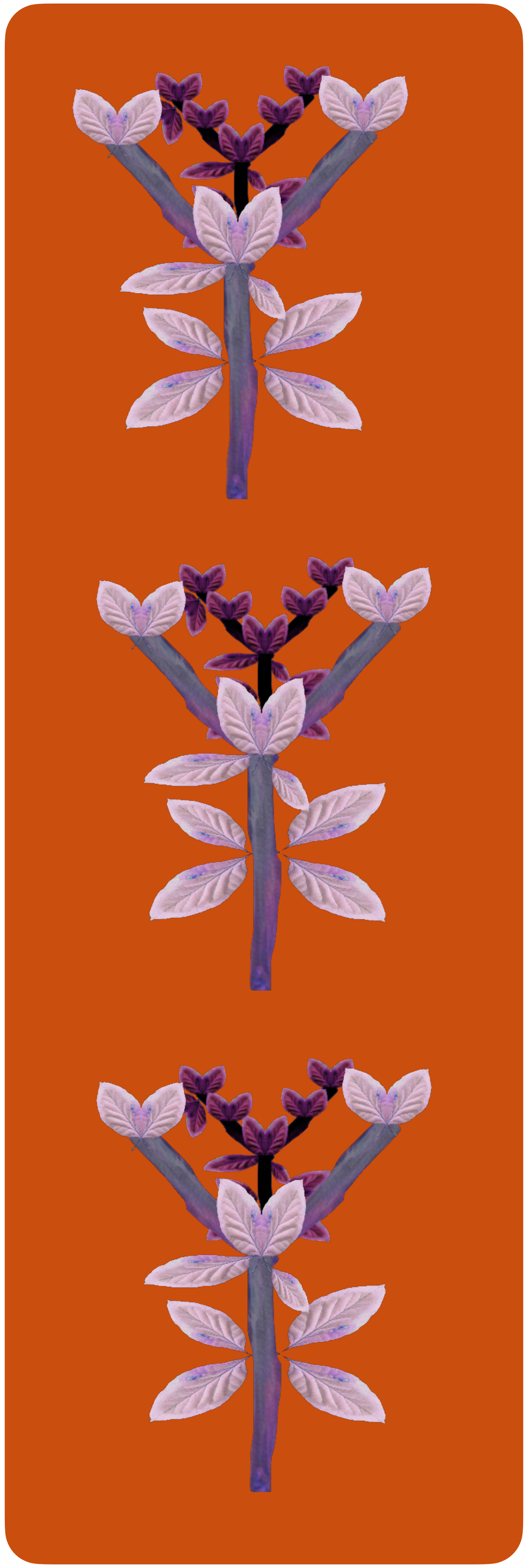


8

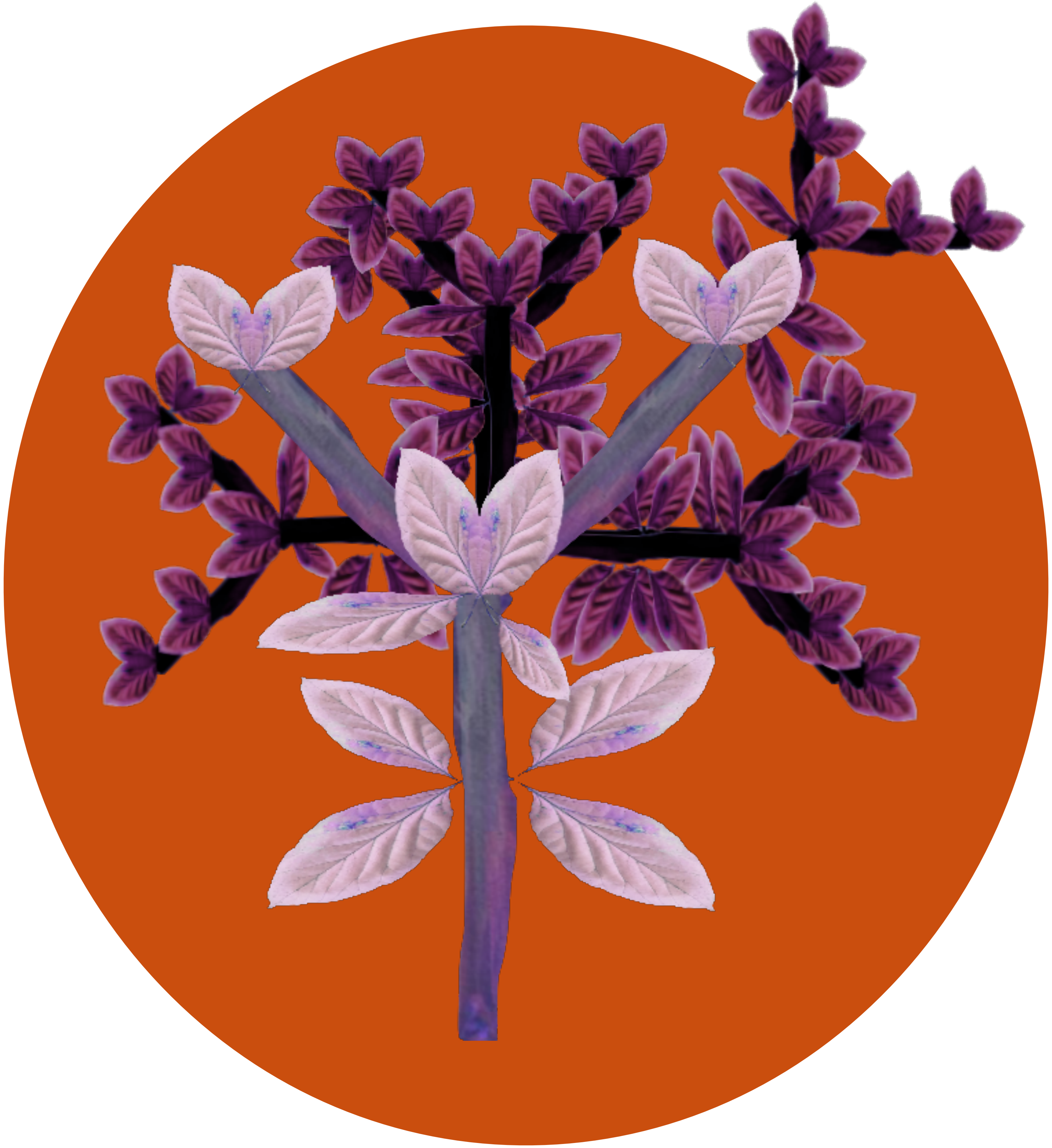
9

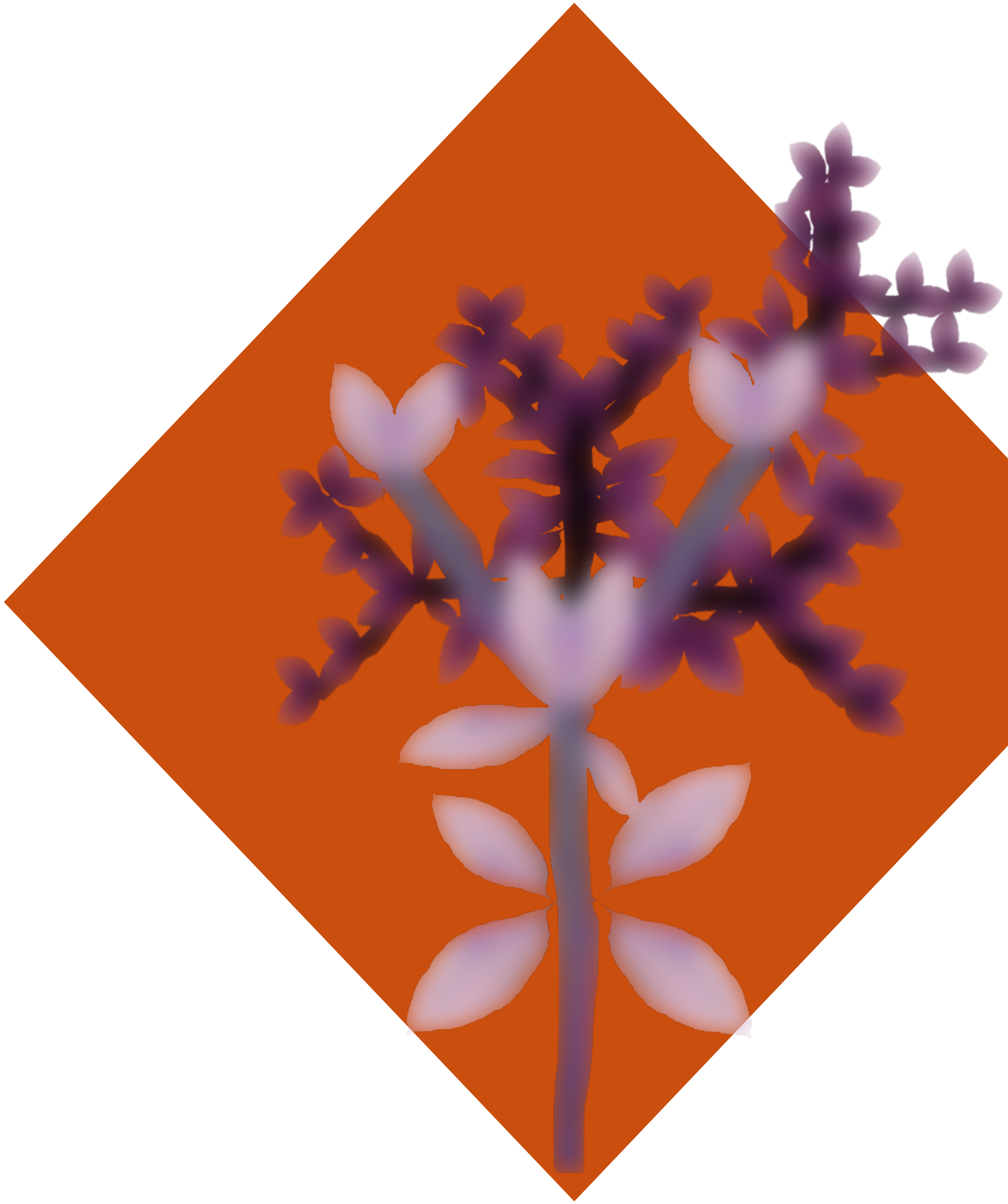
10

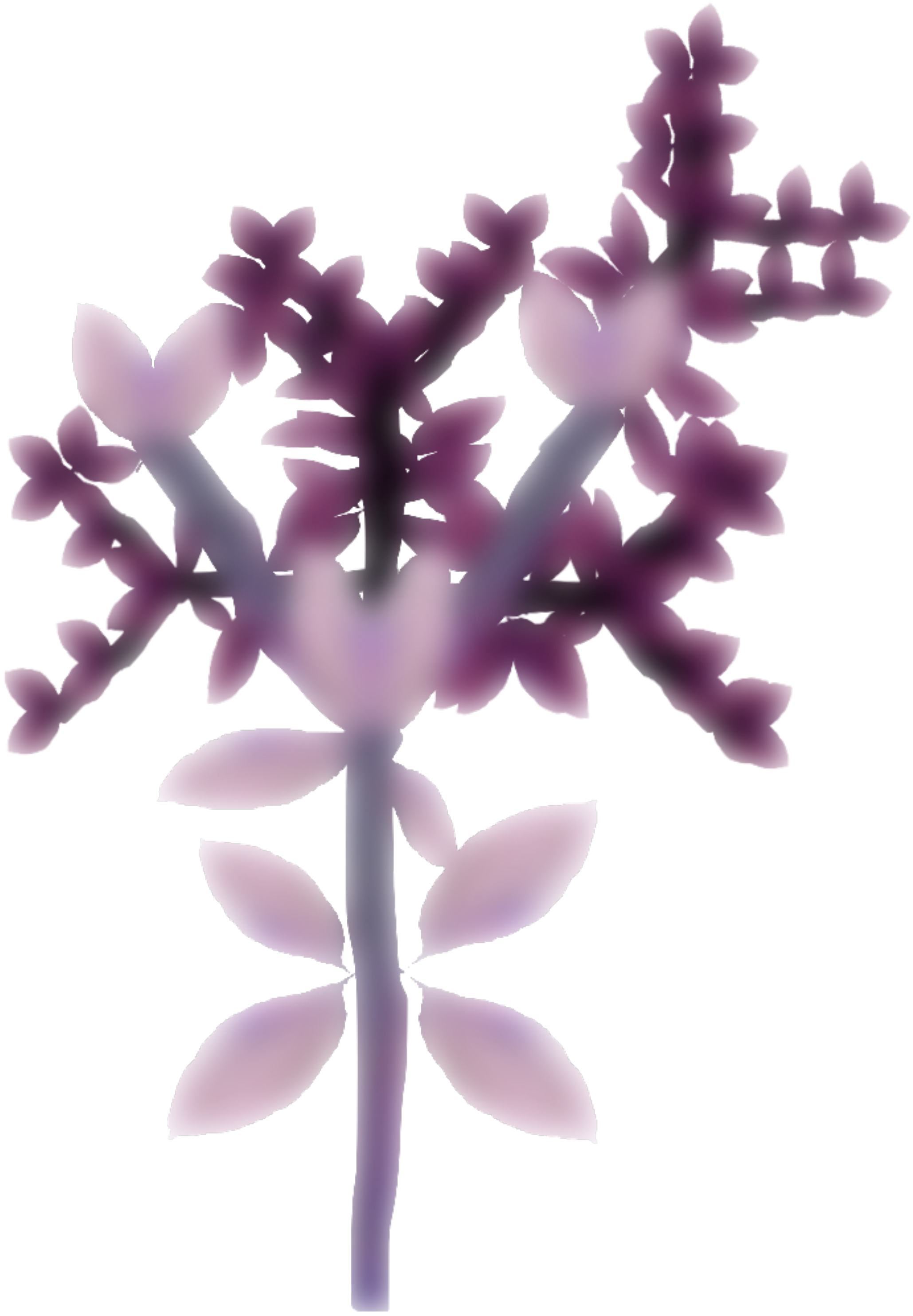


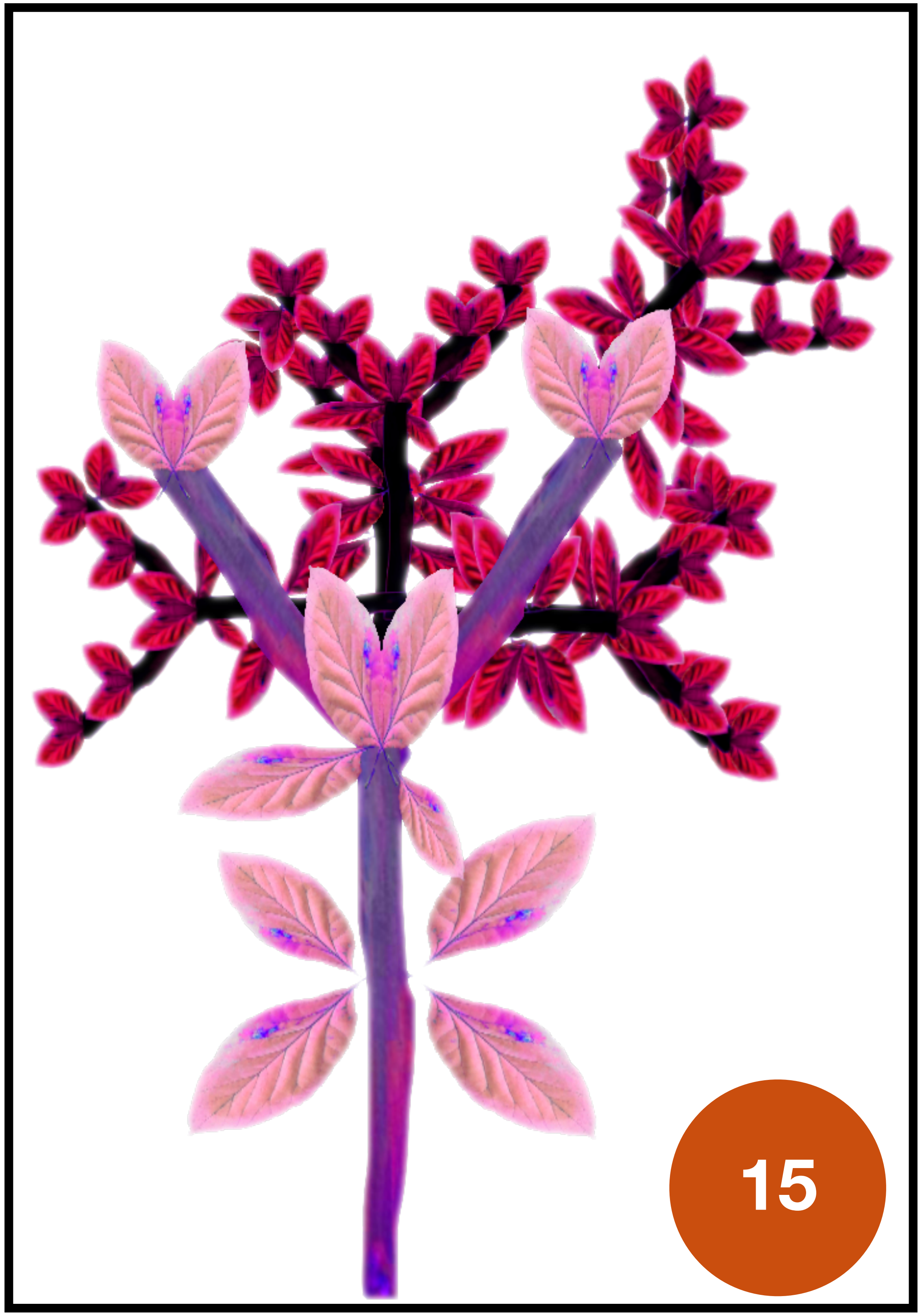


12

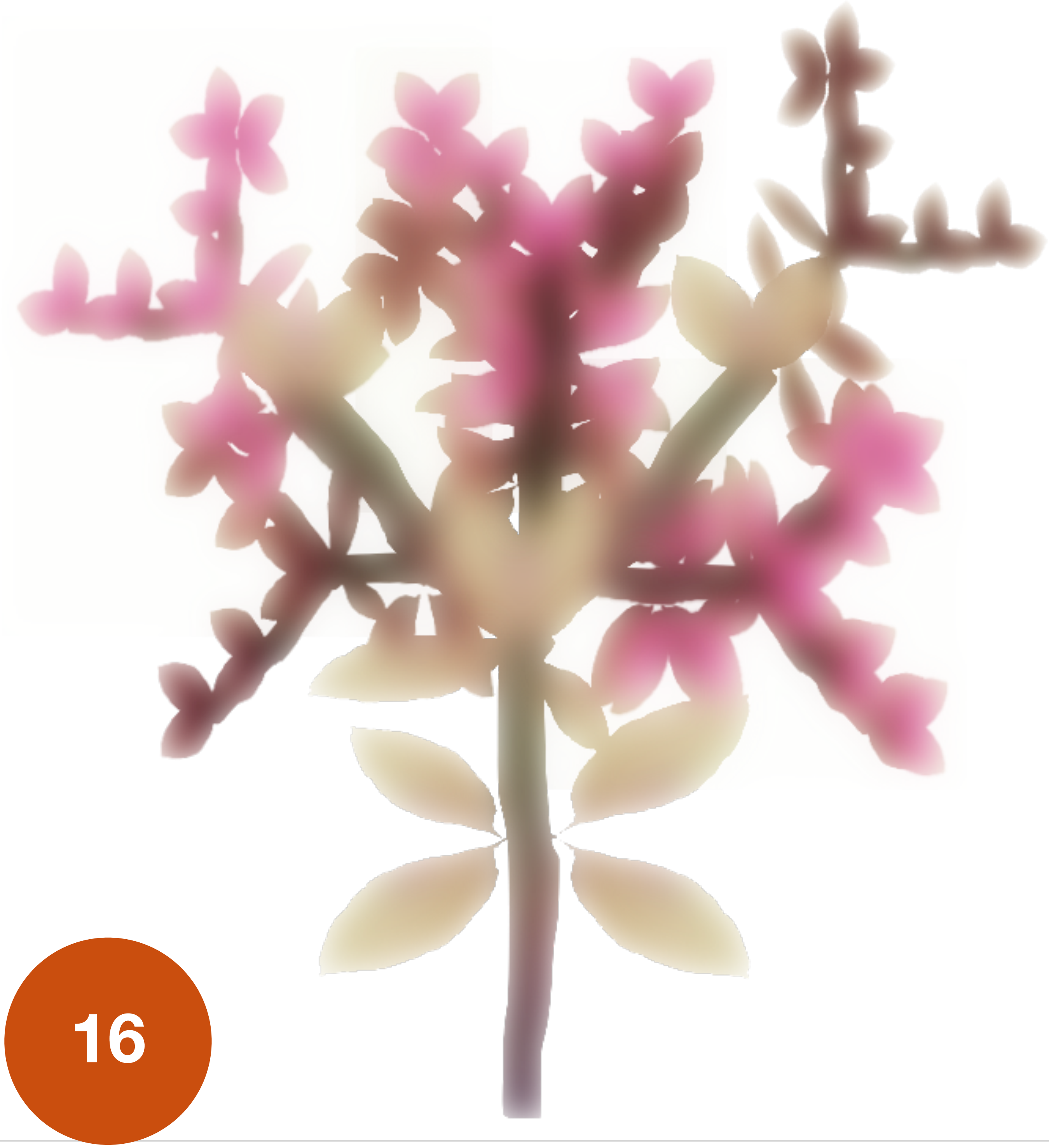




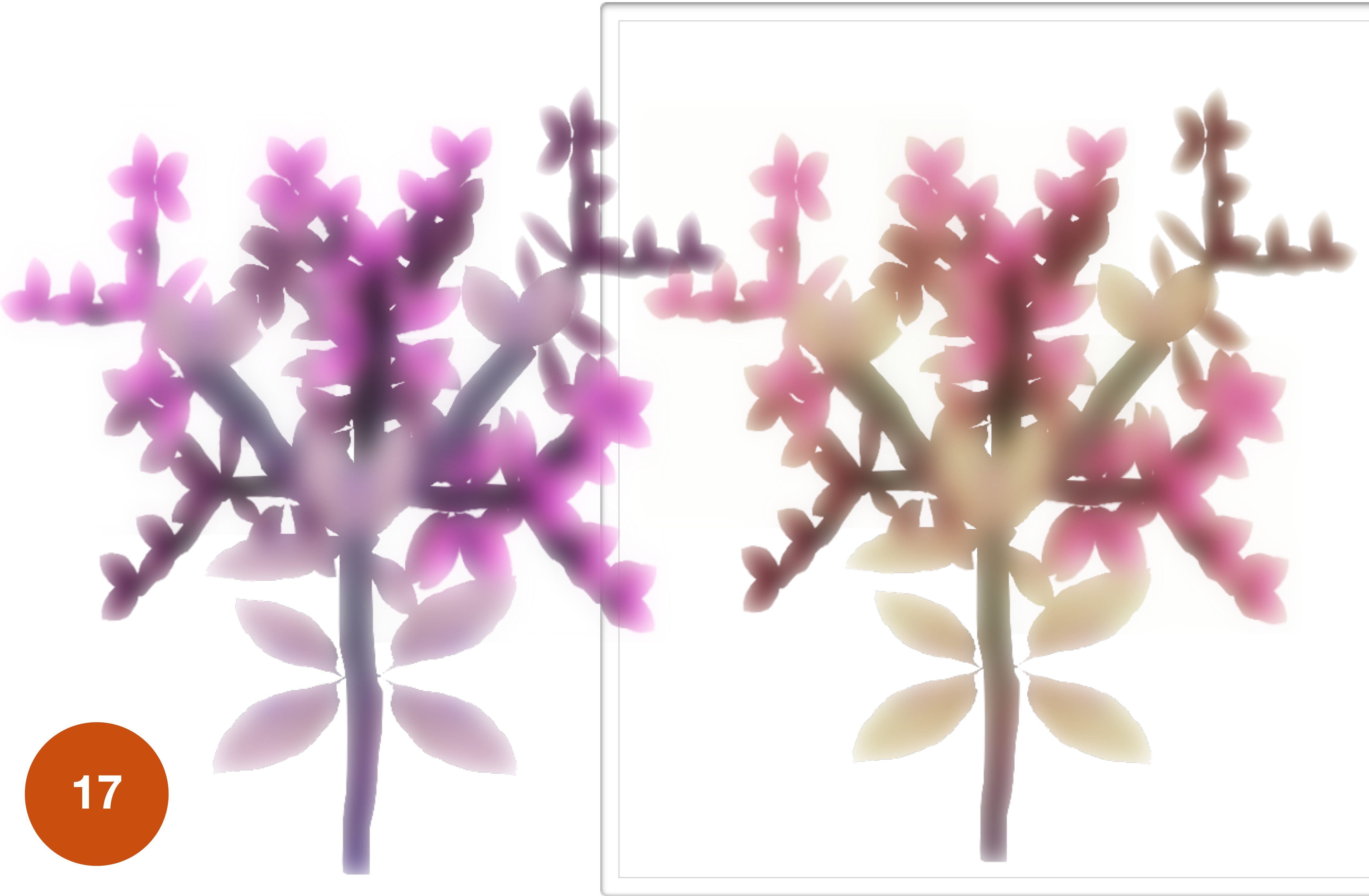



15

Evanescent of Tree 15.

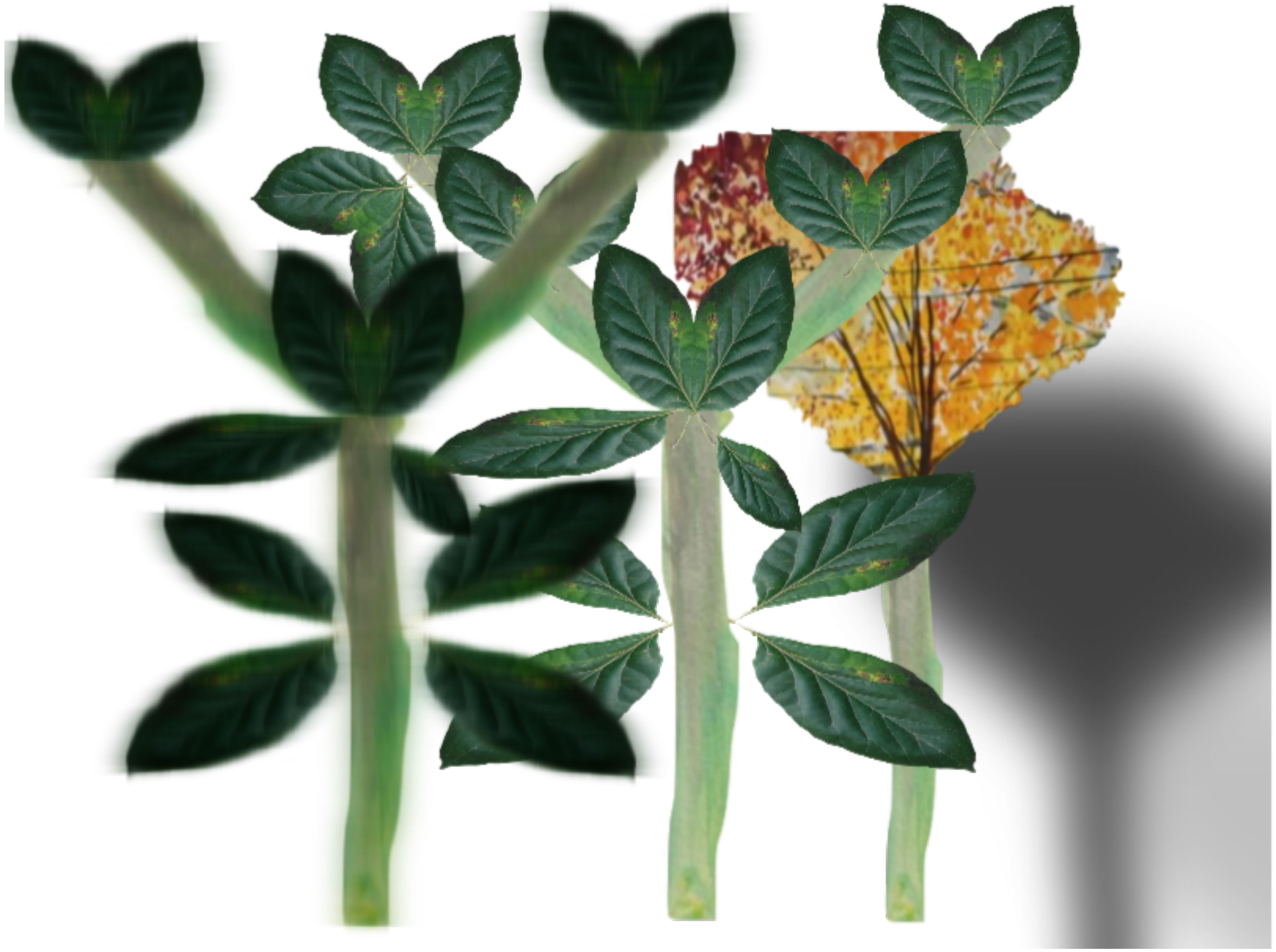


16



17

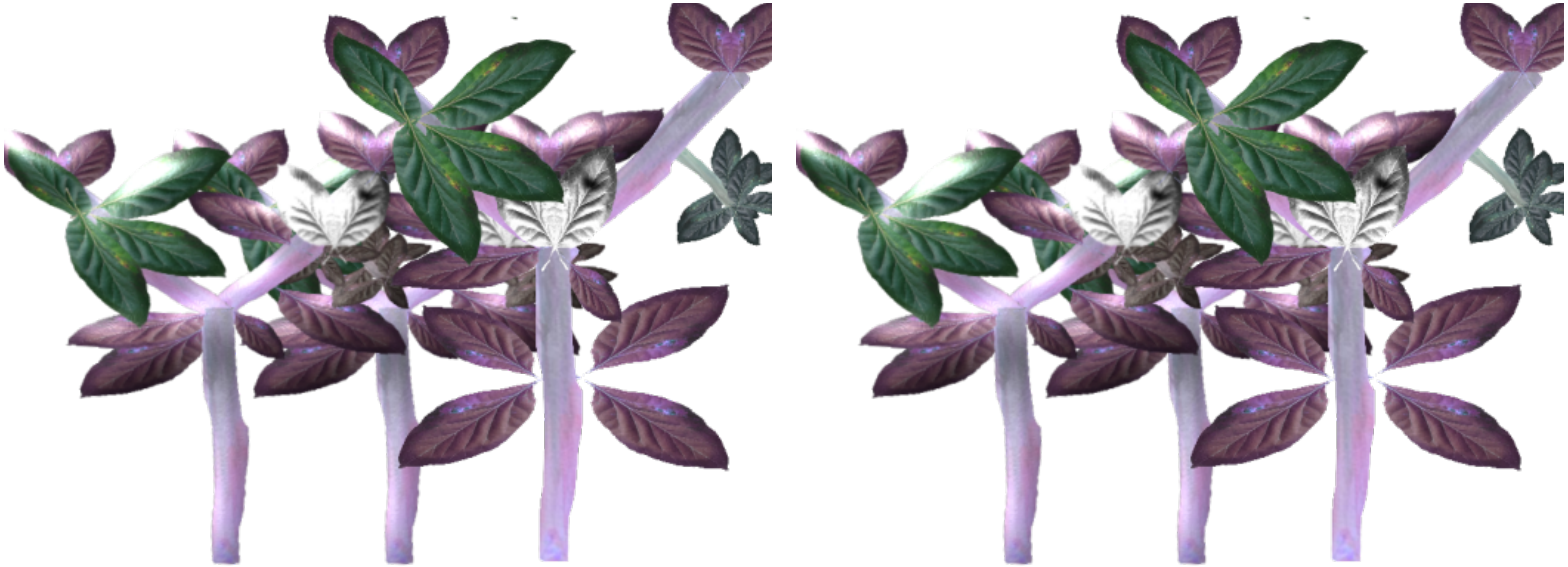
Pictures of TreeMap.



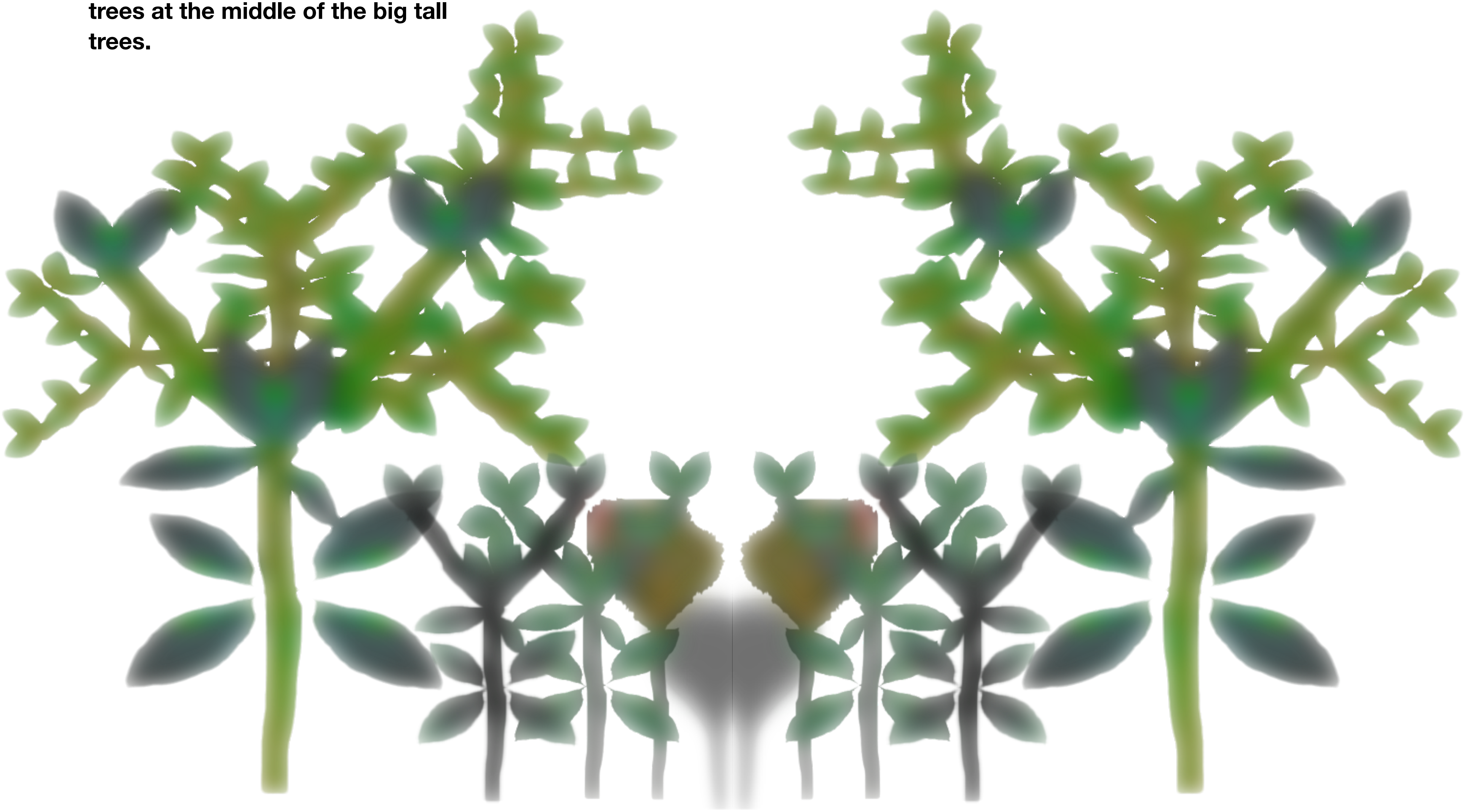
Tree Planting

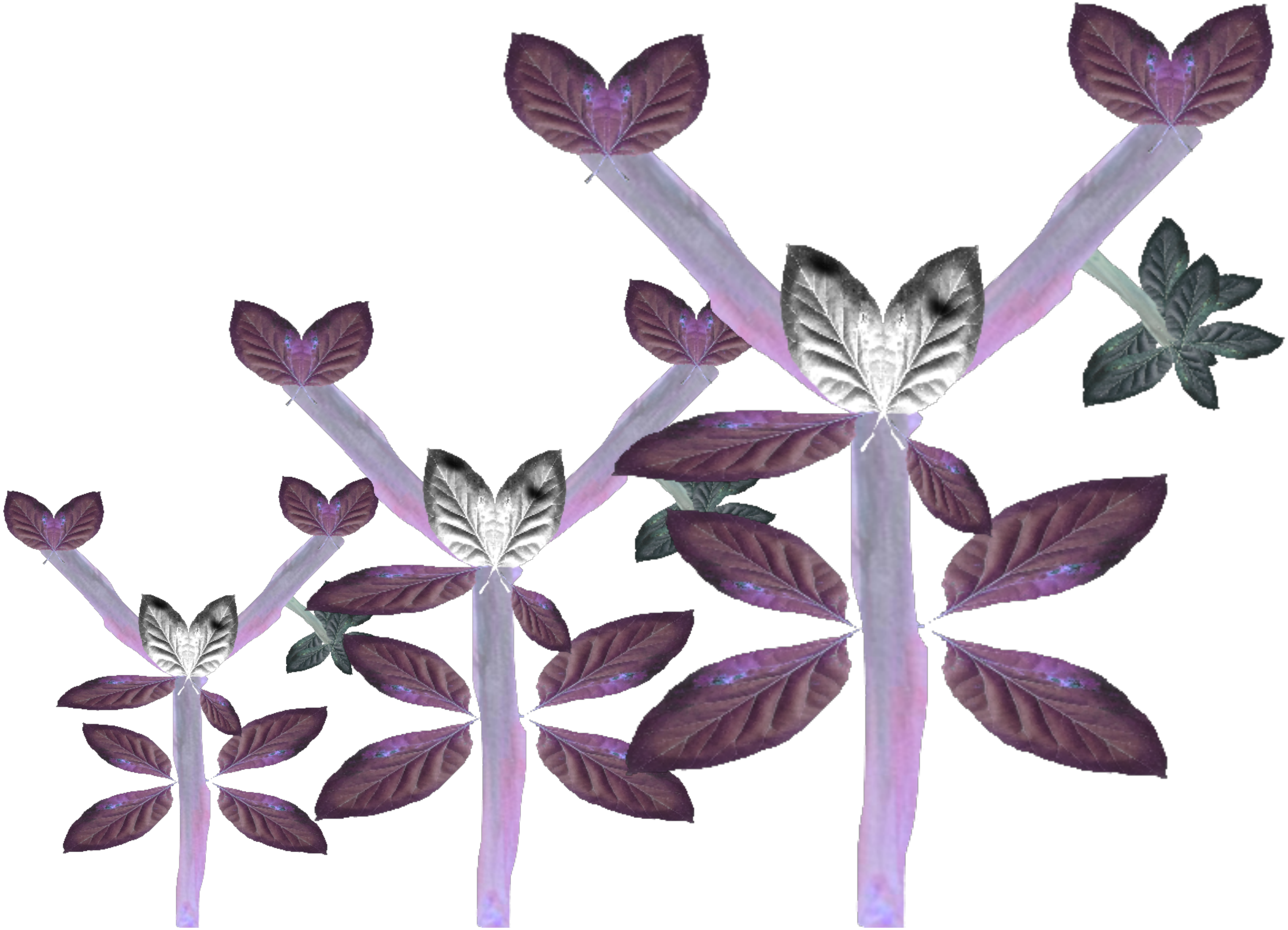
We have several colourful trees and it is now ready to be planted digitally. The approach is to line them up or space them at certain distance. We look at the various ways of showing some digital roots.

Planted in line with different sizes of trunk length.

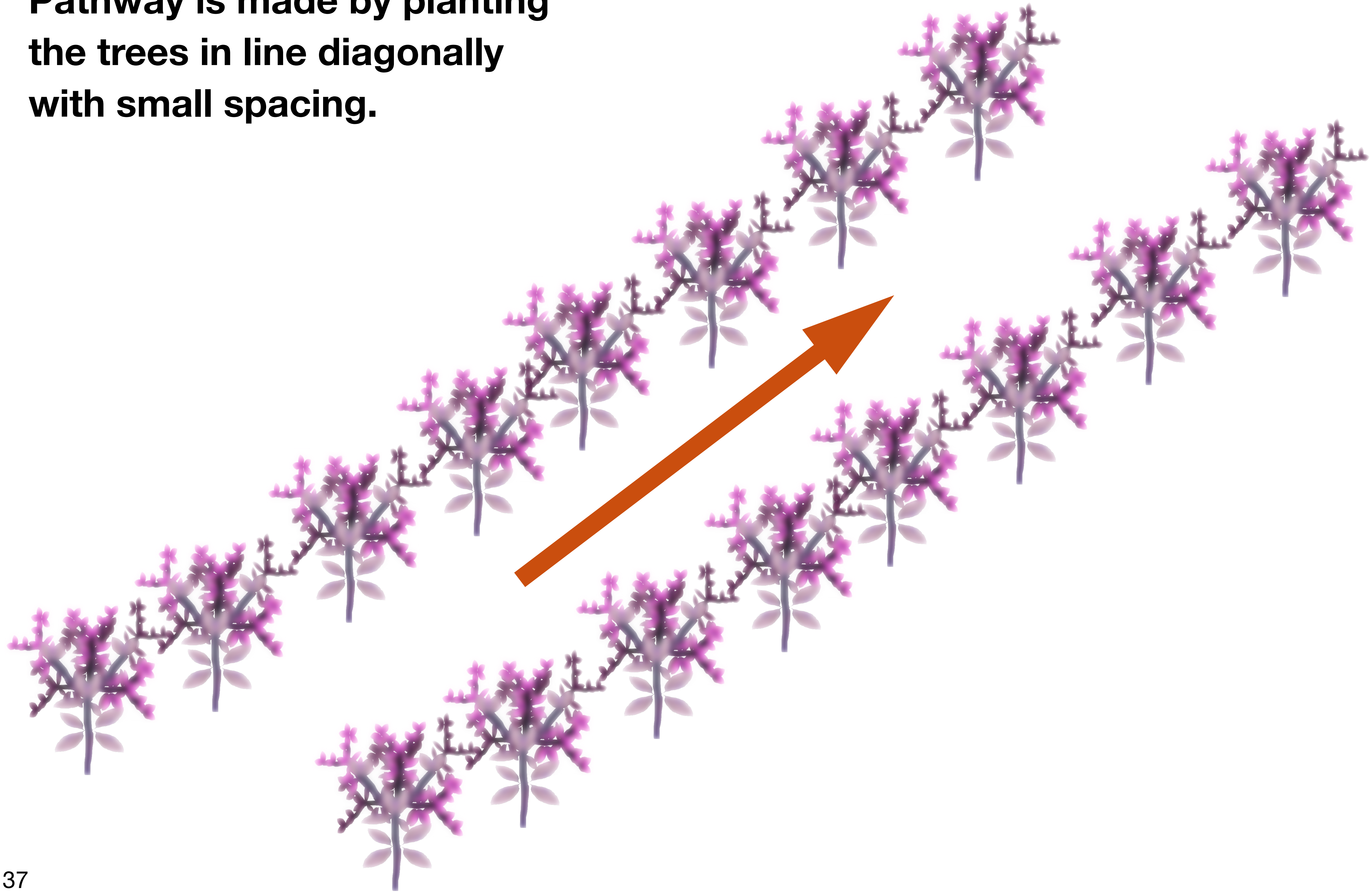


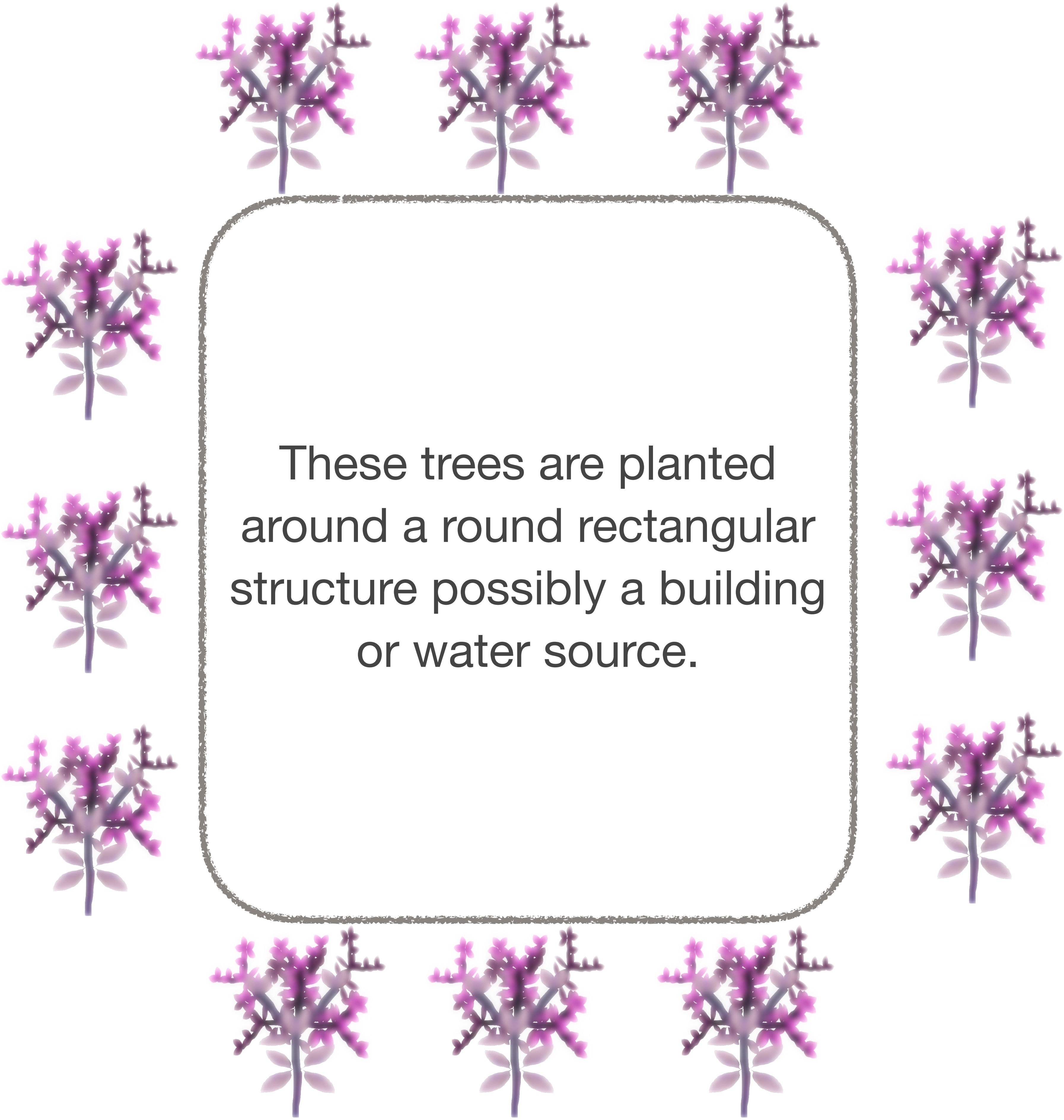
Two big trunk trees at both ends of the forest and six equal size trees at the middle of the big tall trees.



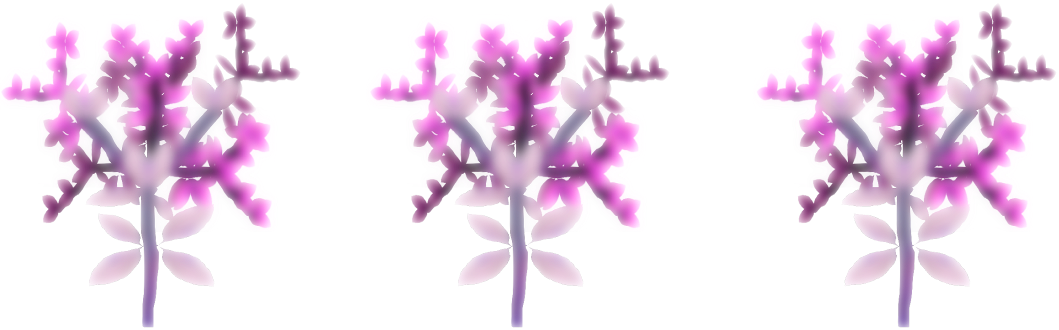


Pathway is made by planting the trees in line diagonally with small spacing.

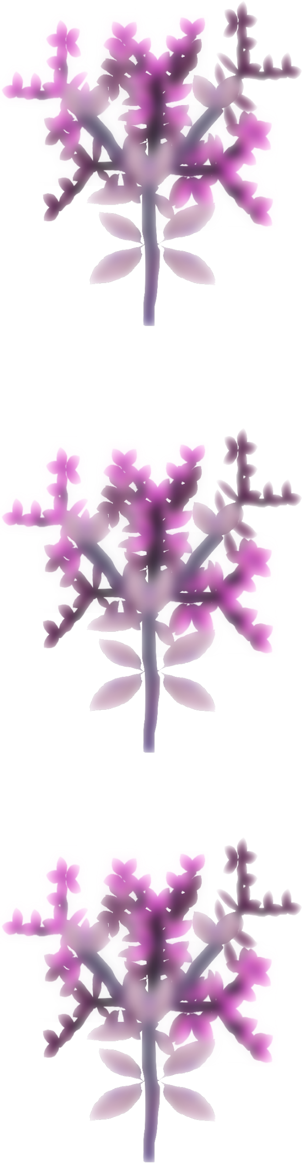




These trees are planted around a round rectangular structure possibly a building or water source.



Enhanced Tree line



Enhanced

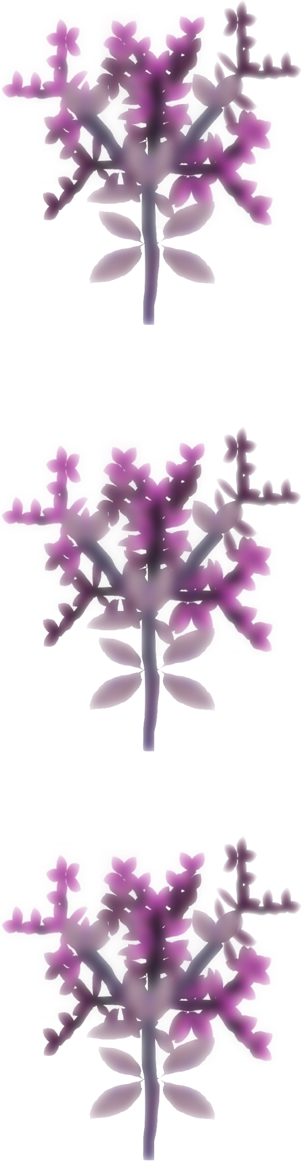
-

Exposure

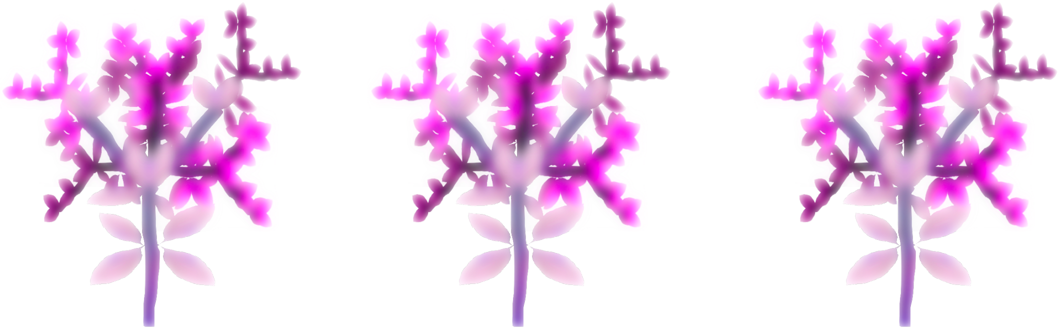
-

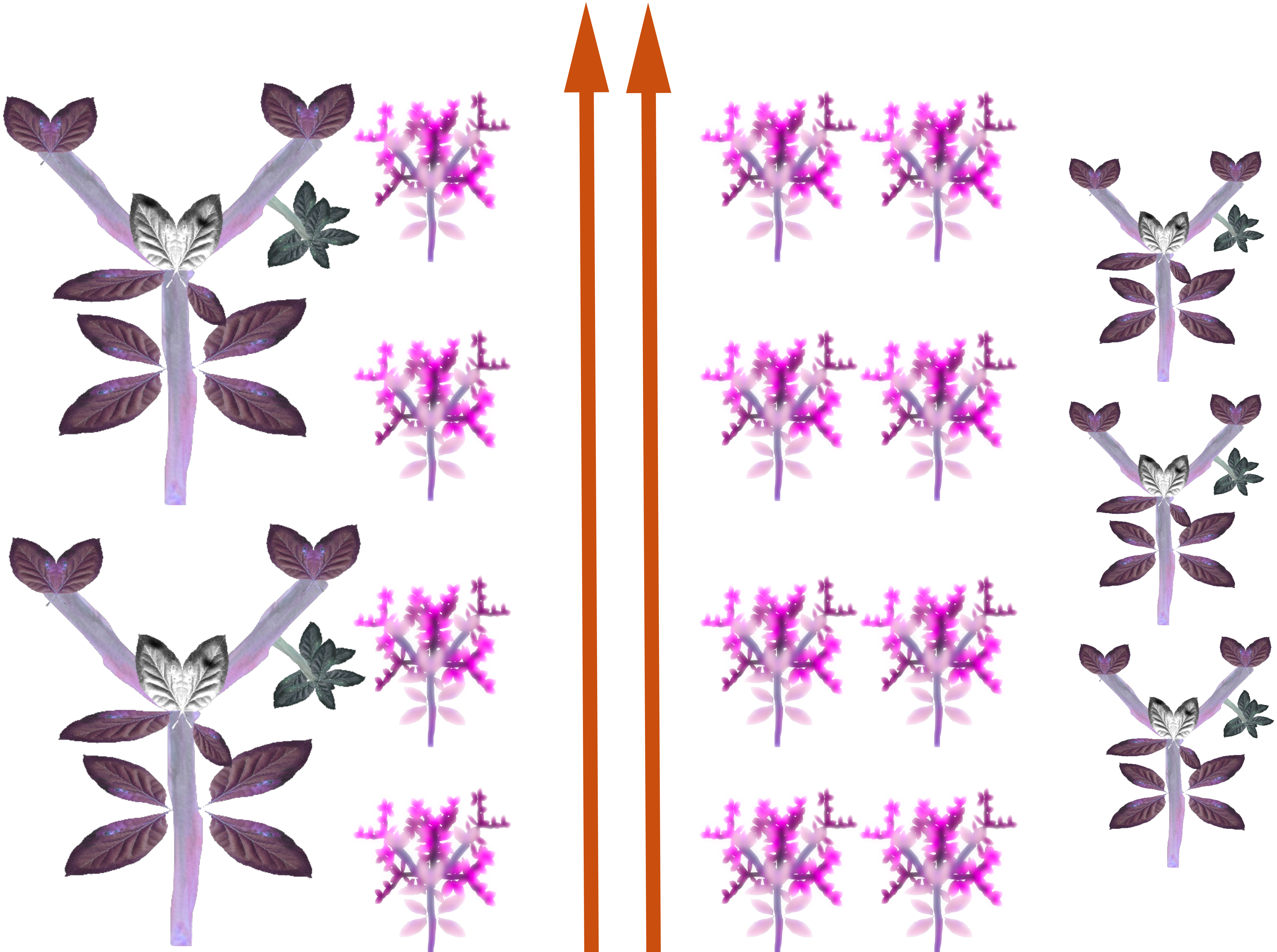
Saturation

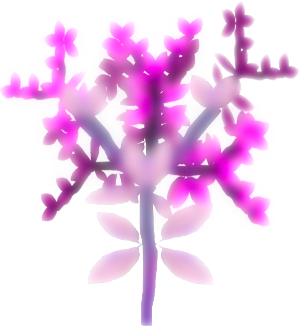
Exposure=-0.57

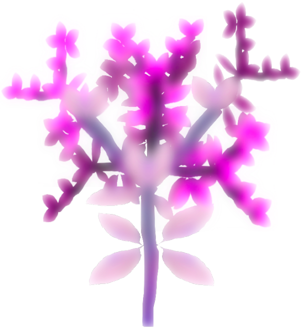


Saturation=0.54 on Tree line

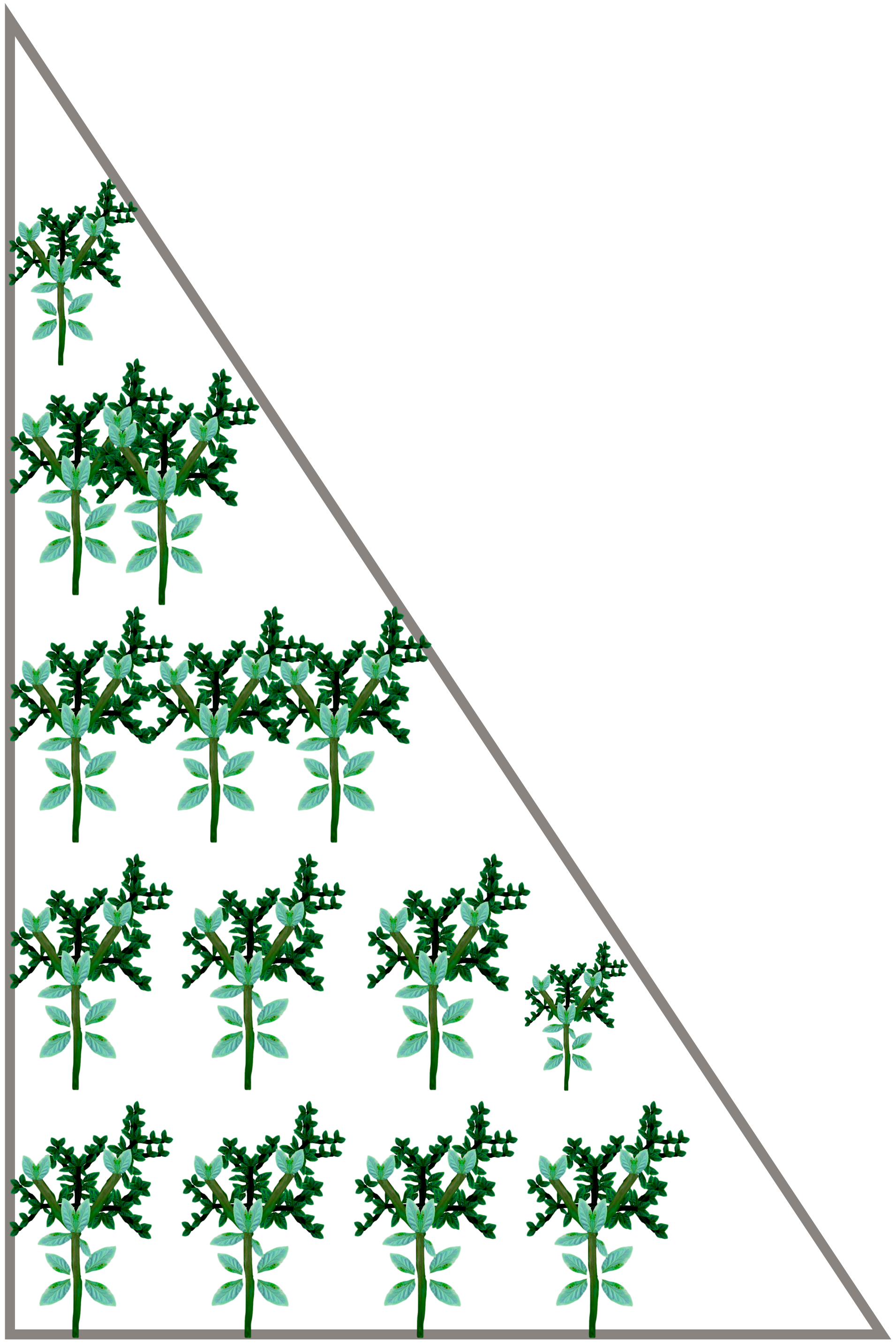


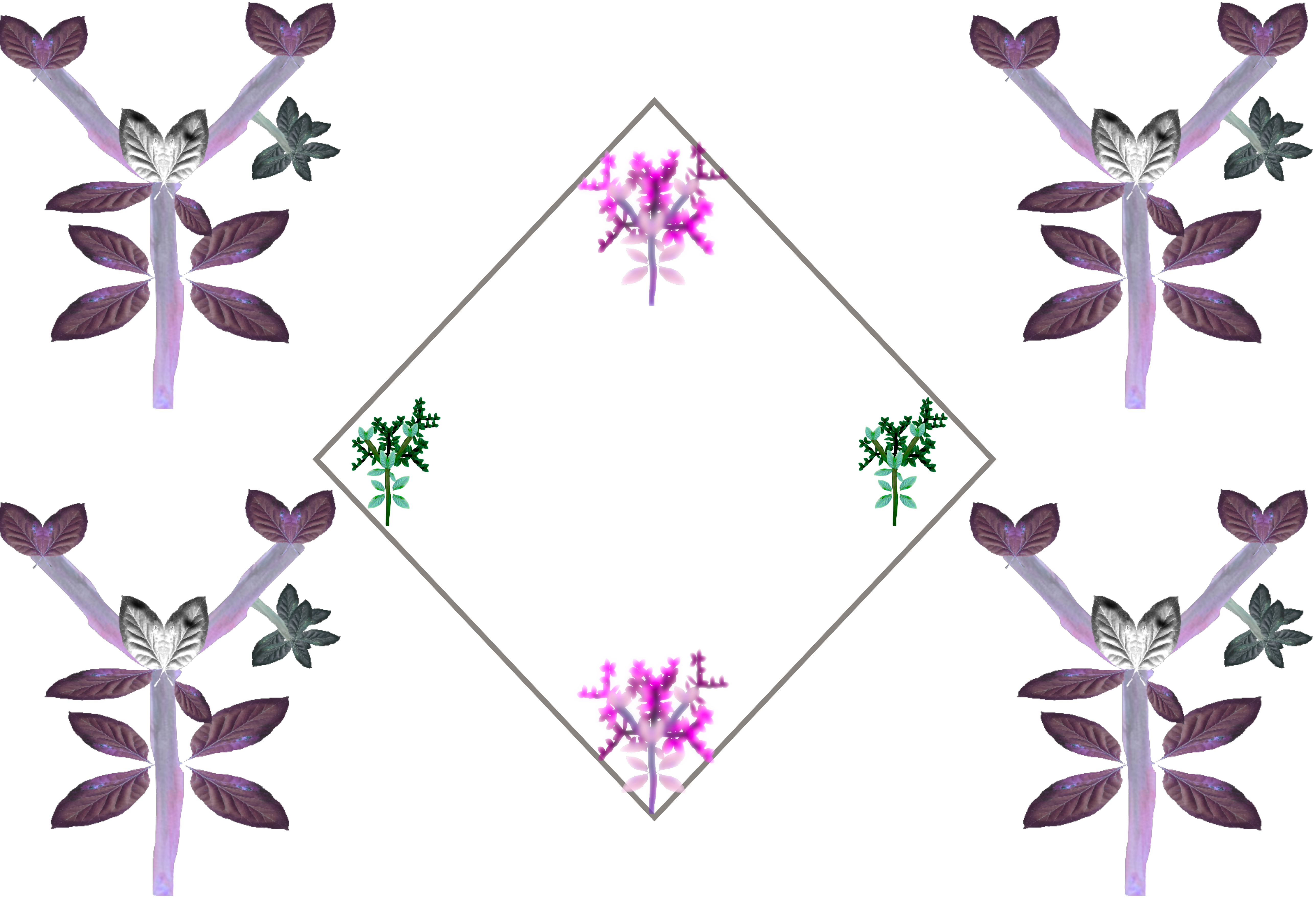


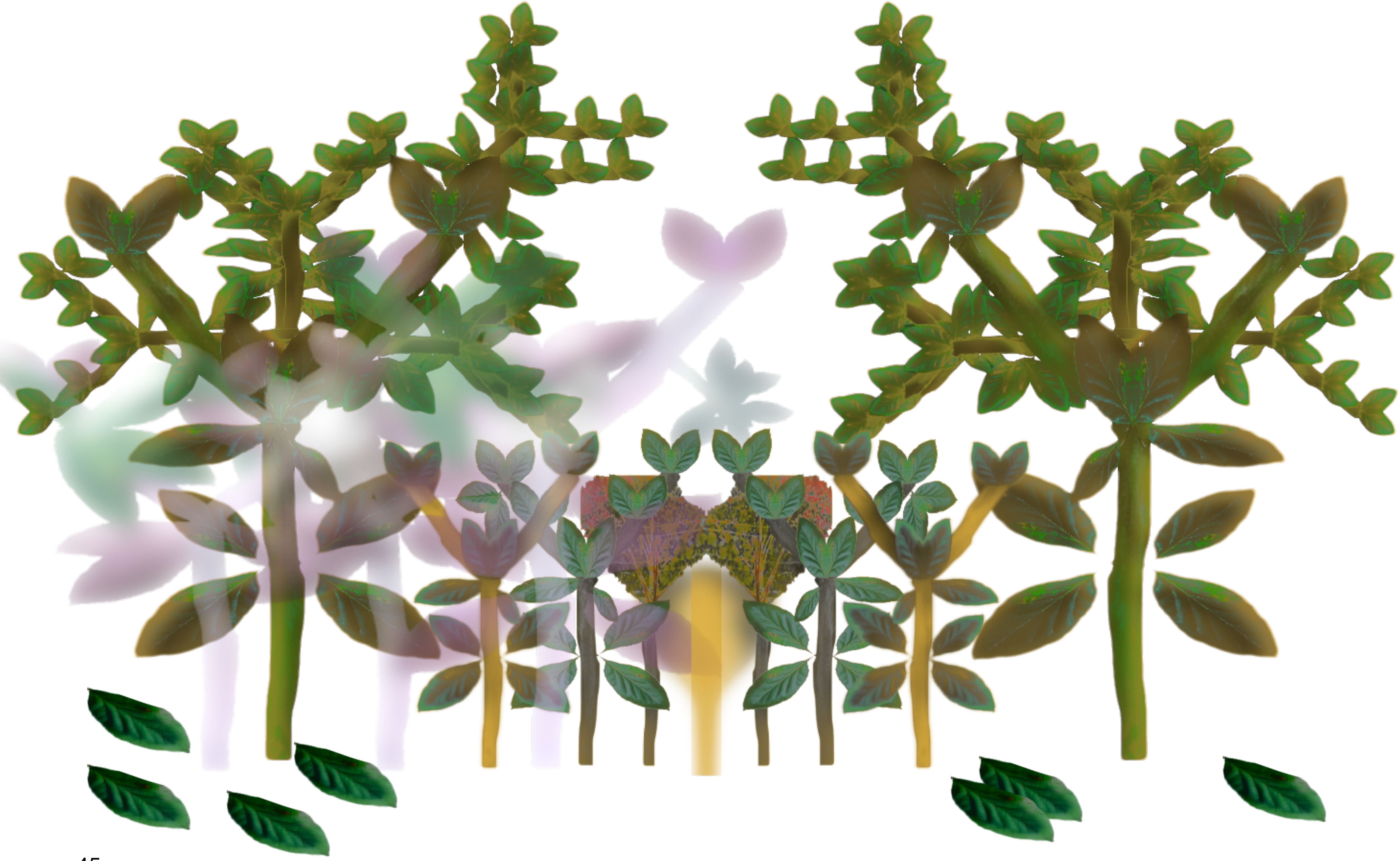


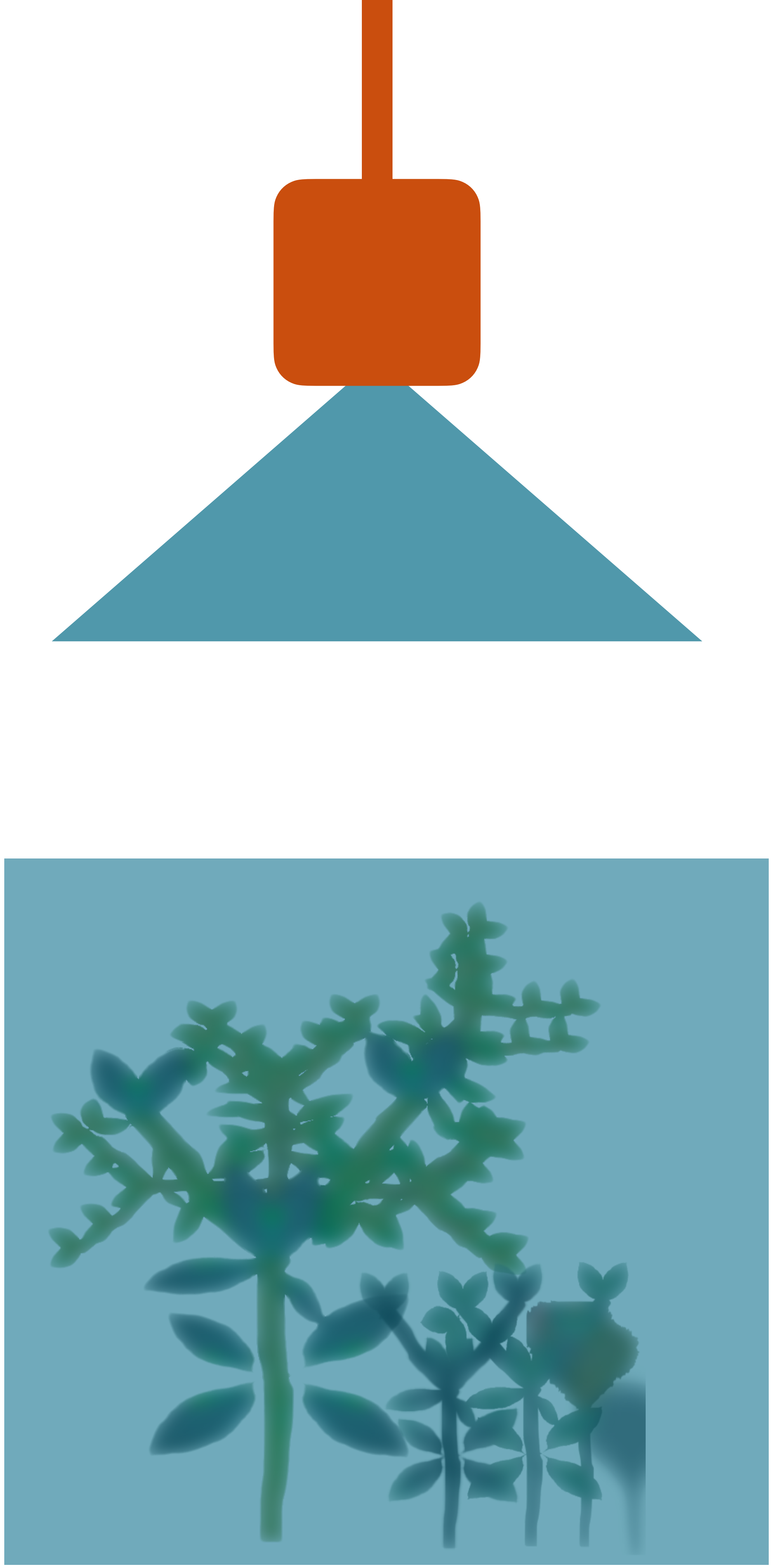


Triangularisation of tree planting.

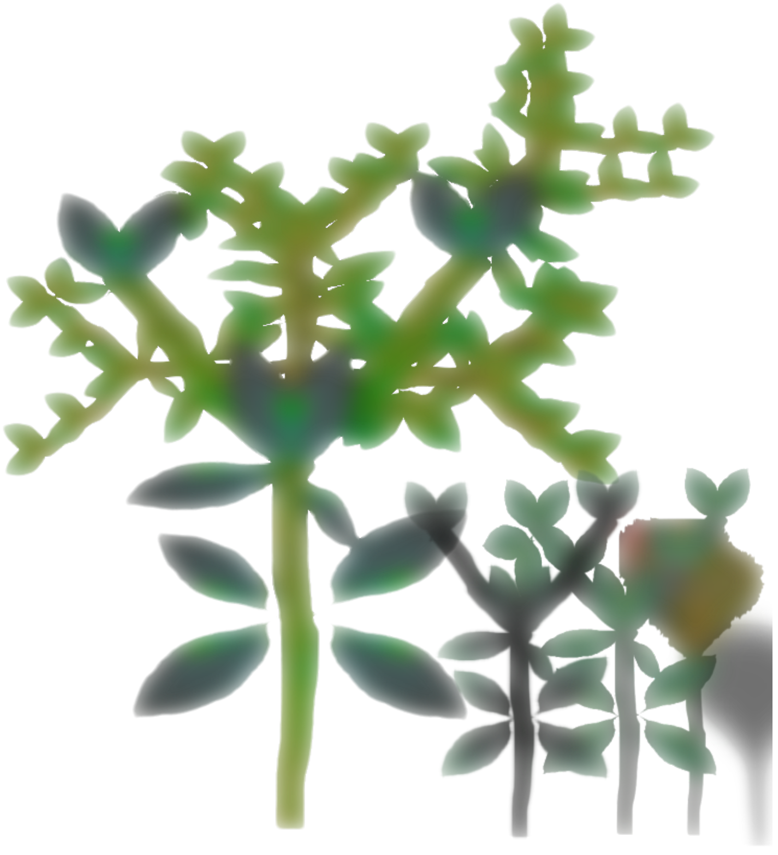




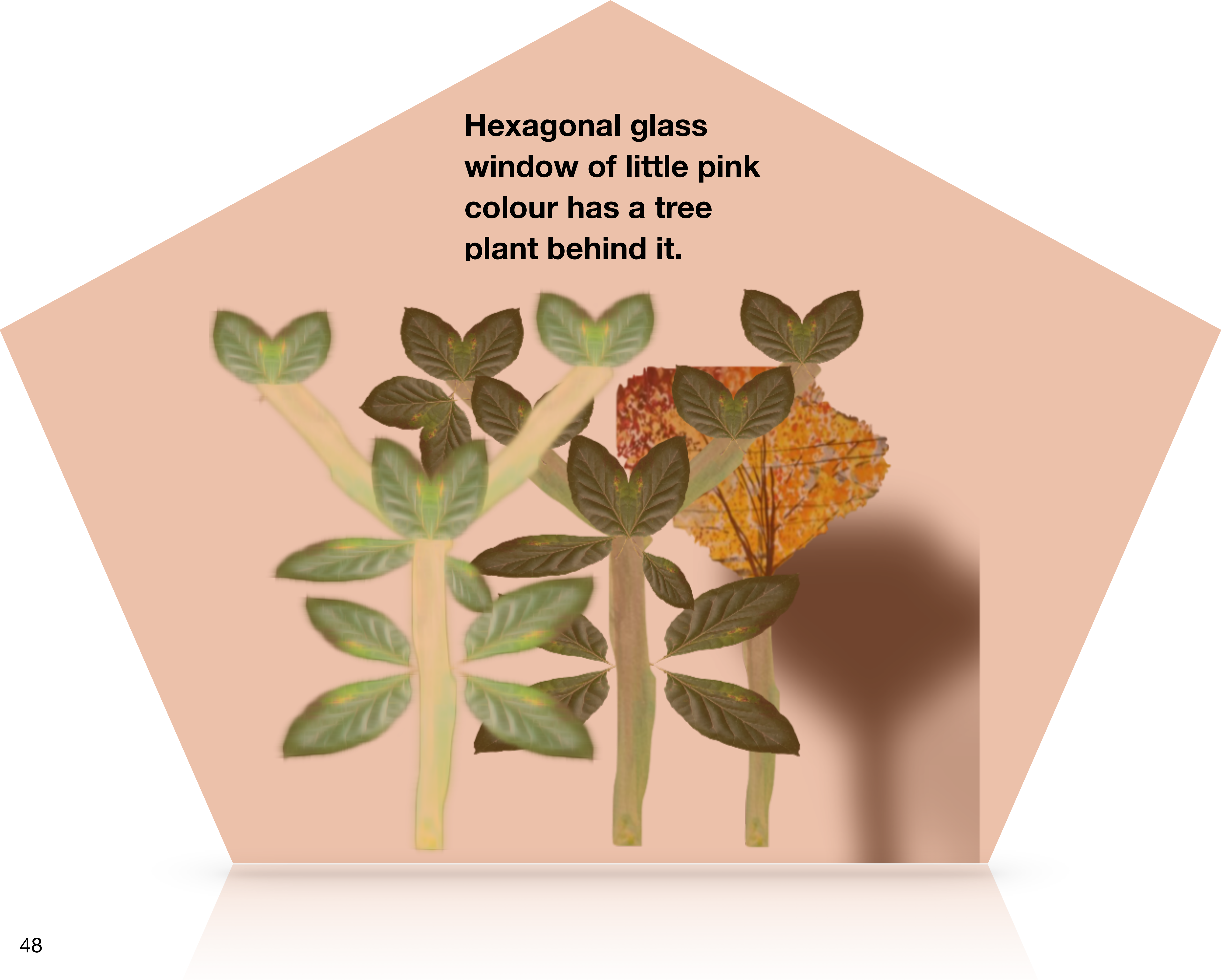


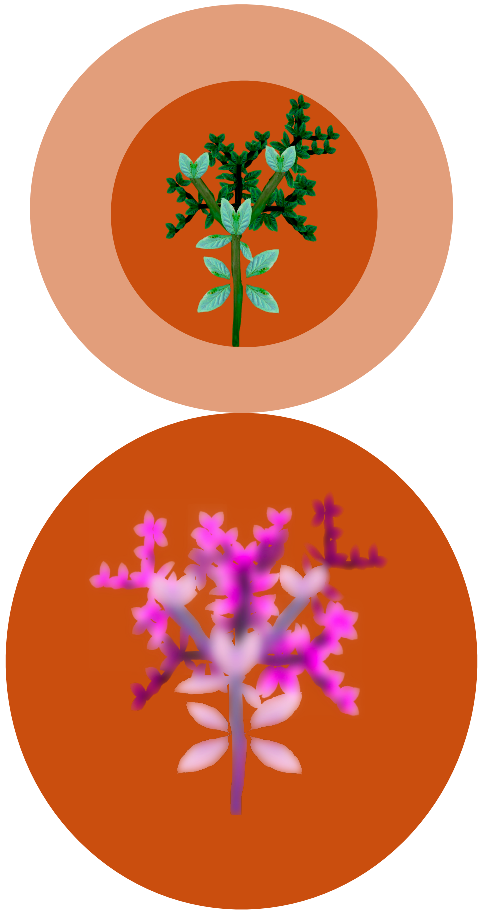


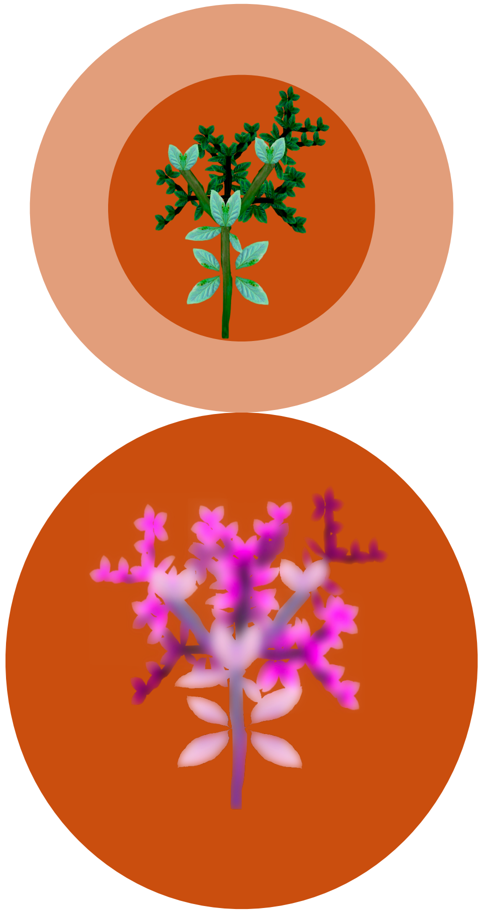
Spot light on the tree.

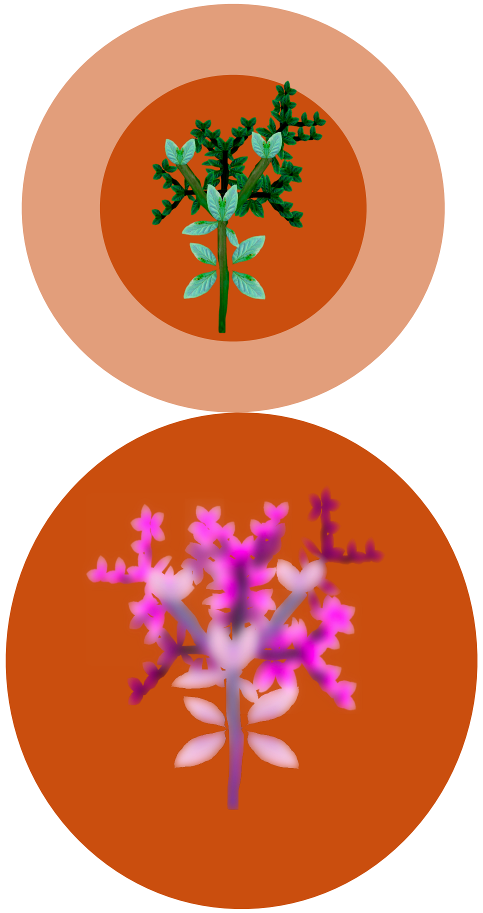


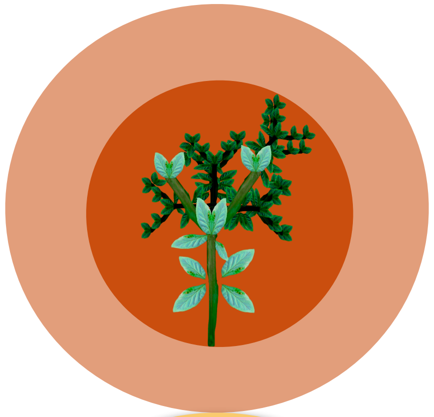
Hexagonal glass window of little pink colour has a tree plant behind it.

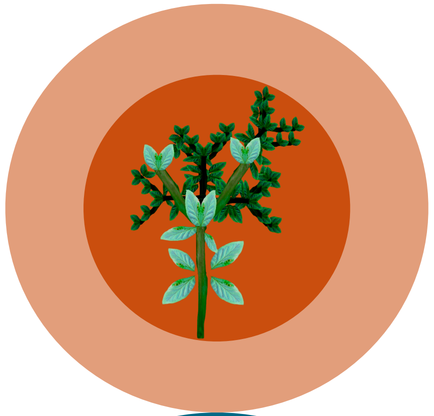


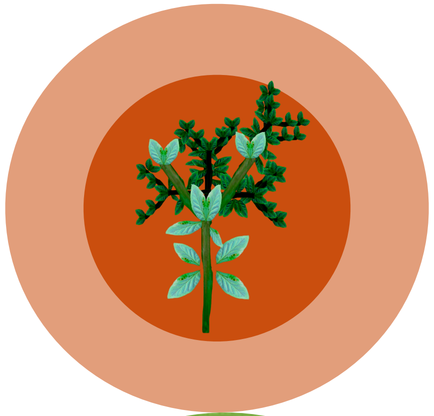


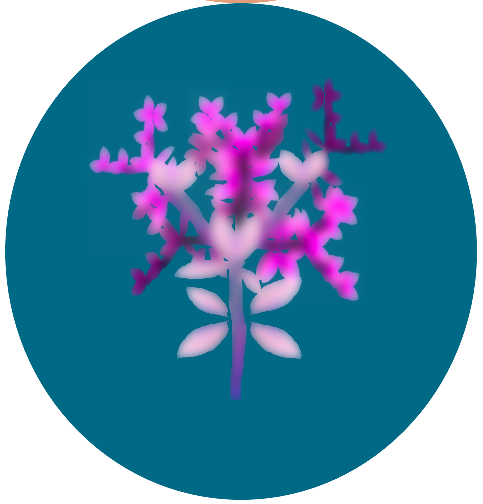


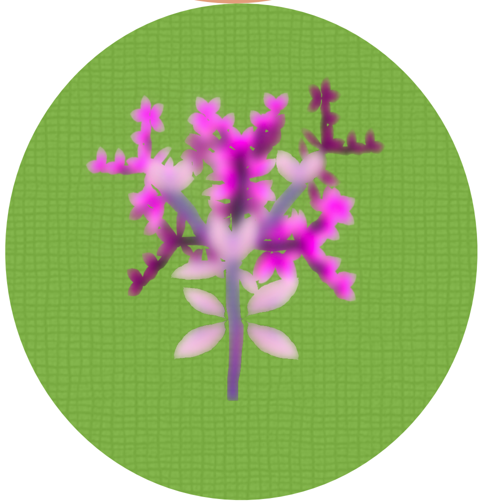


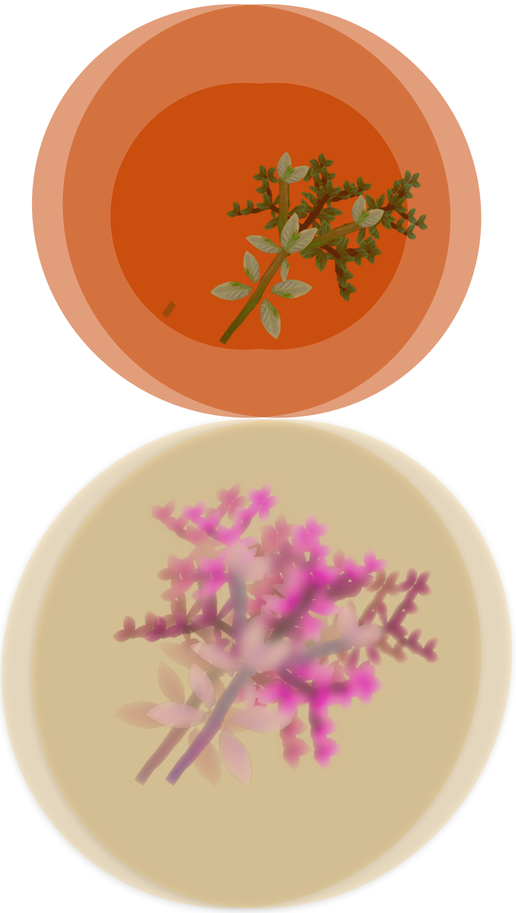


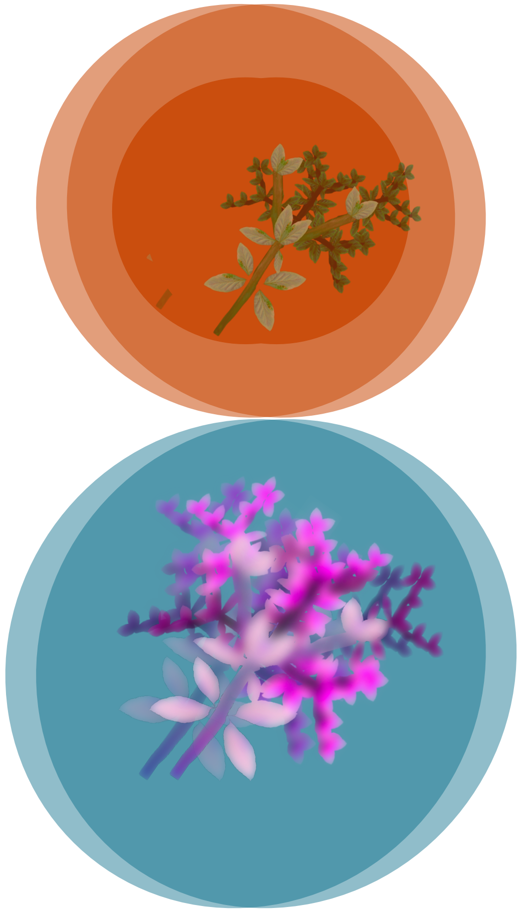


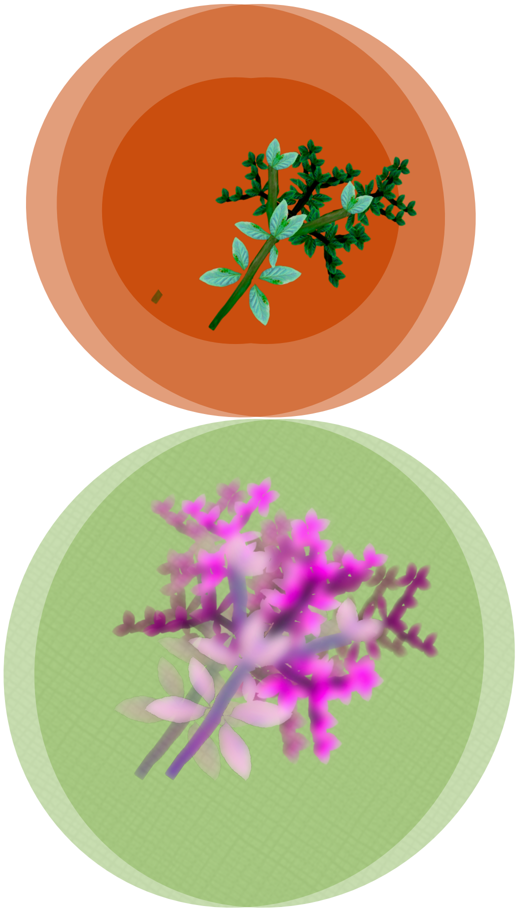


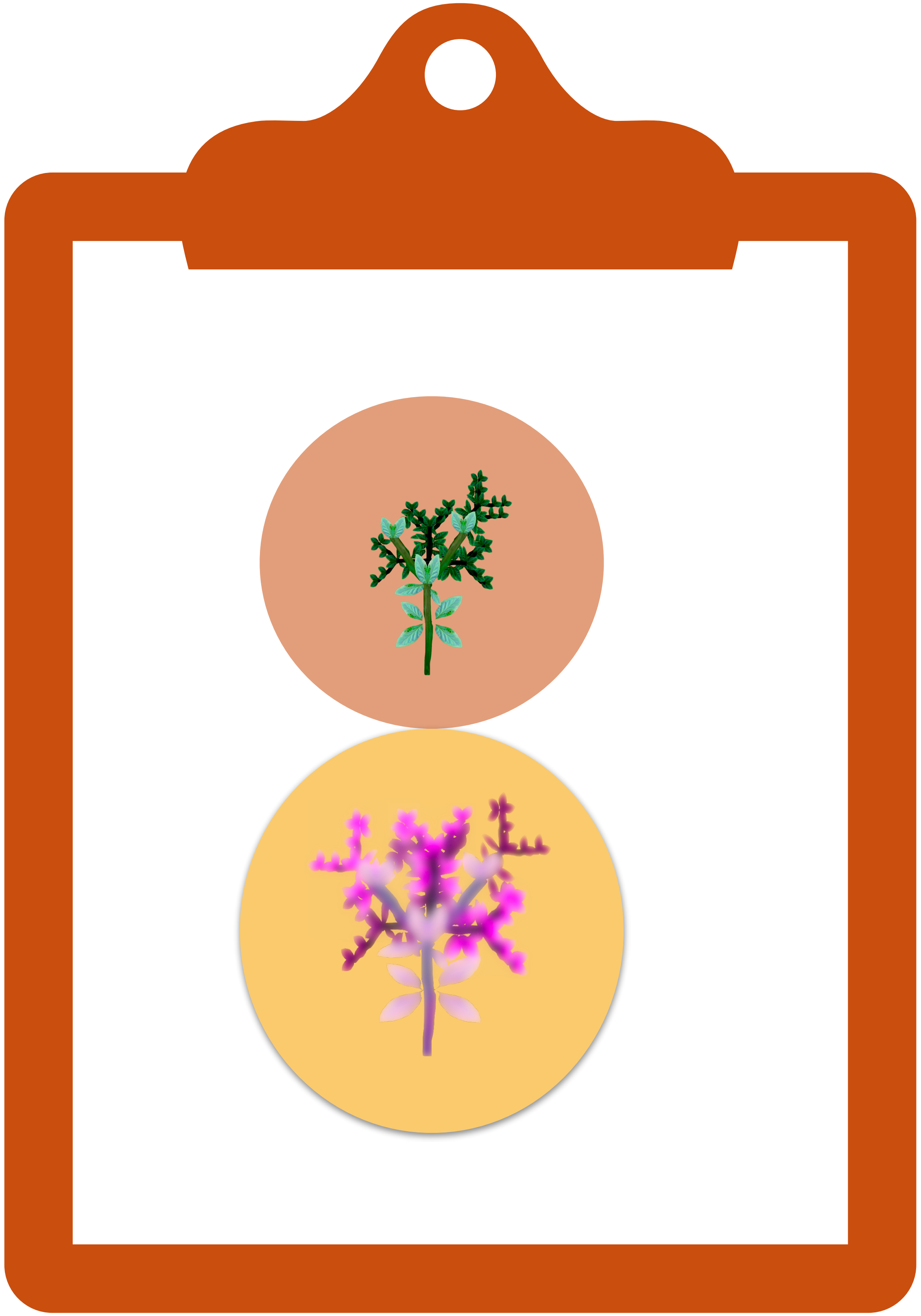


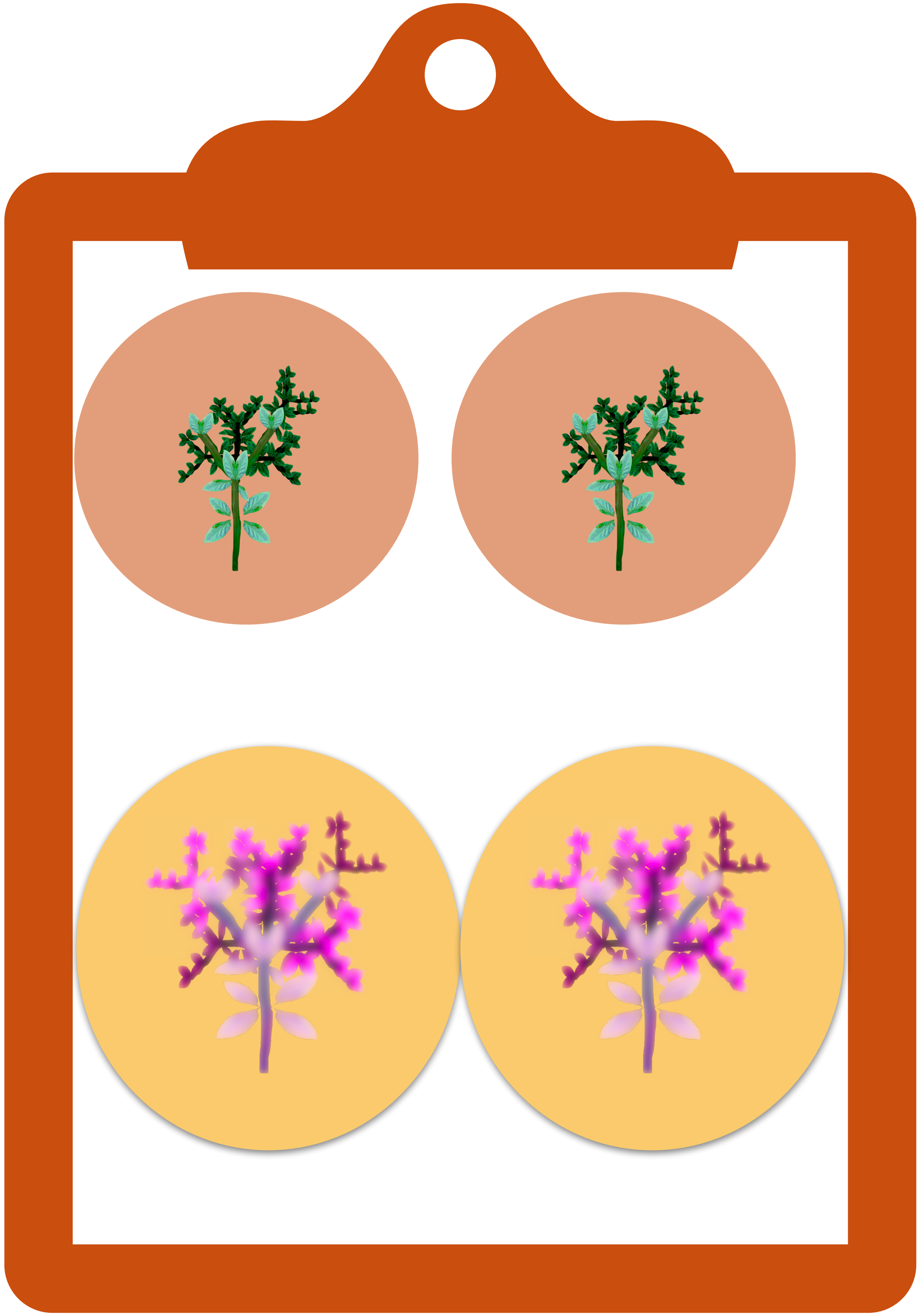


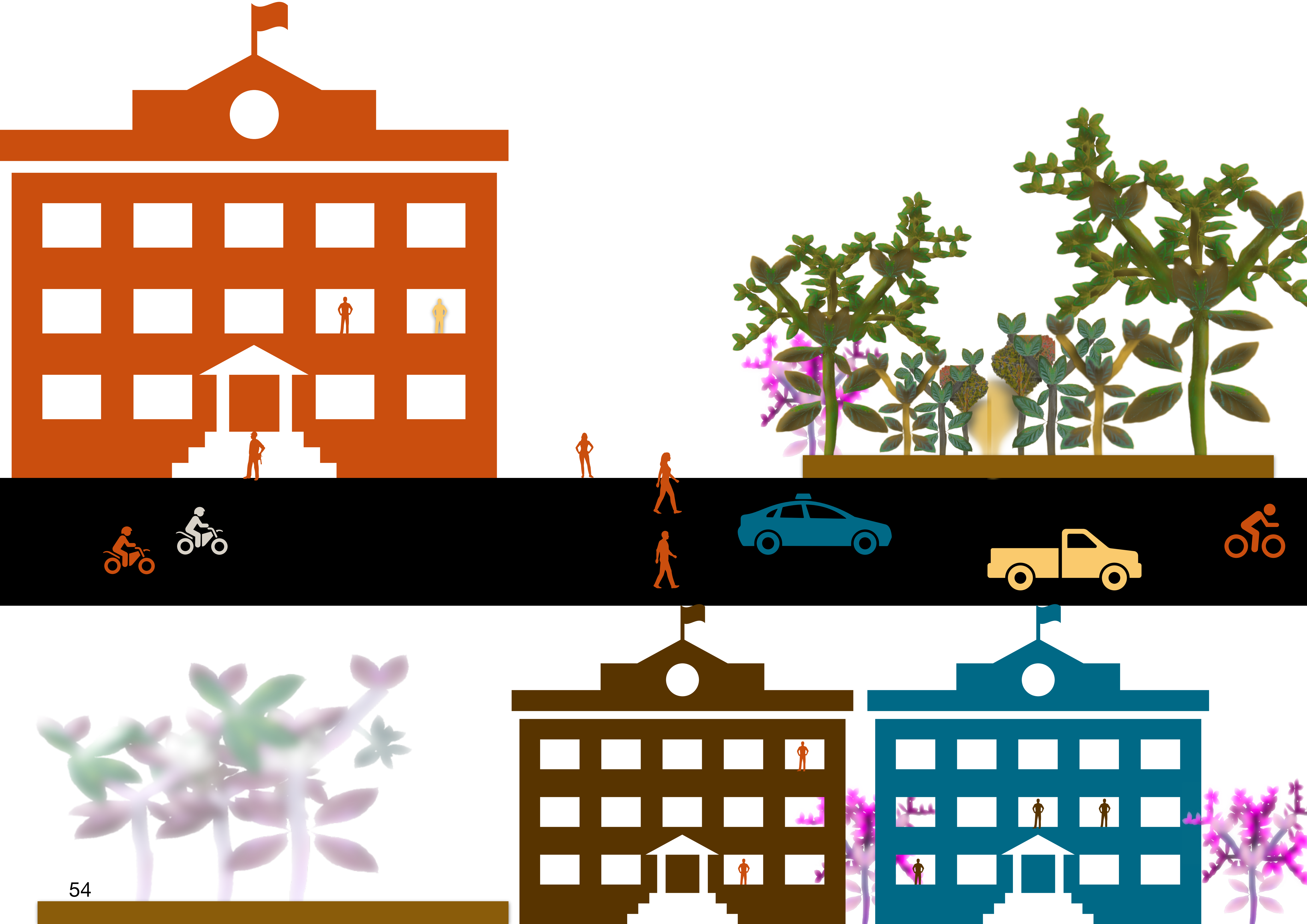


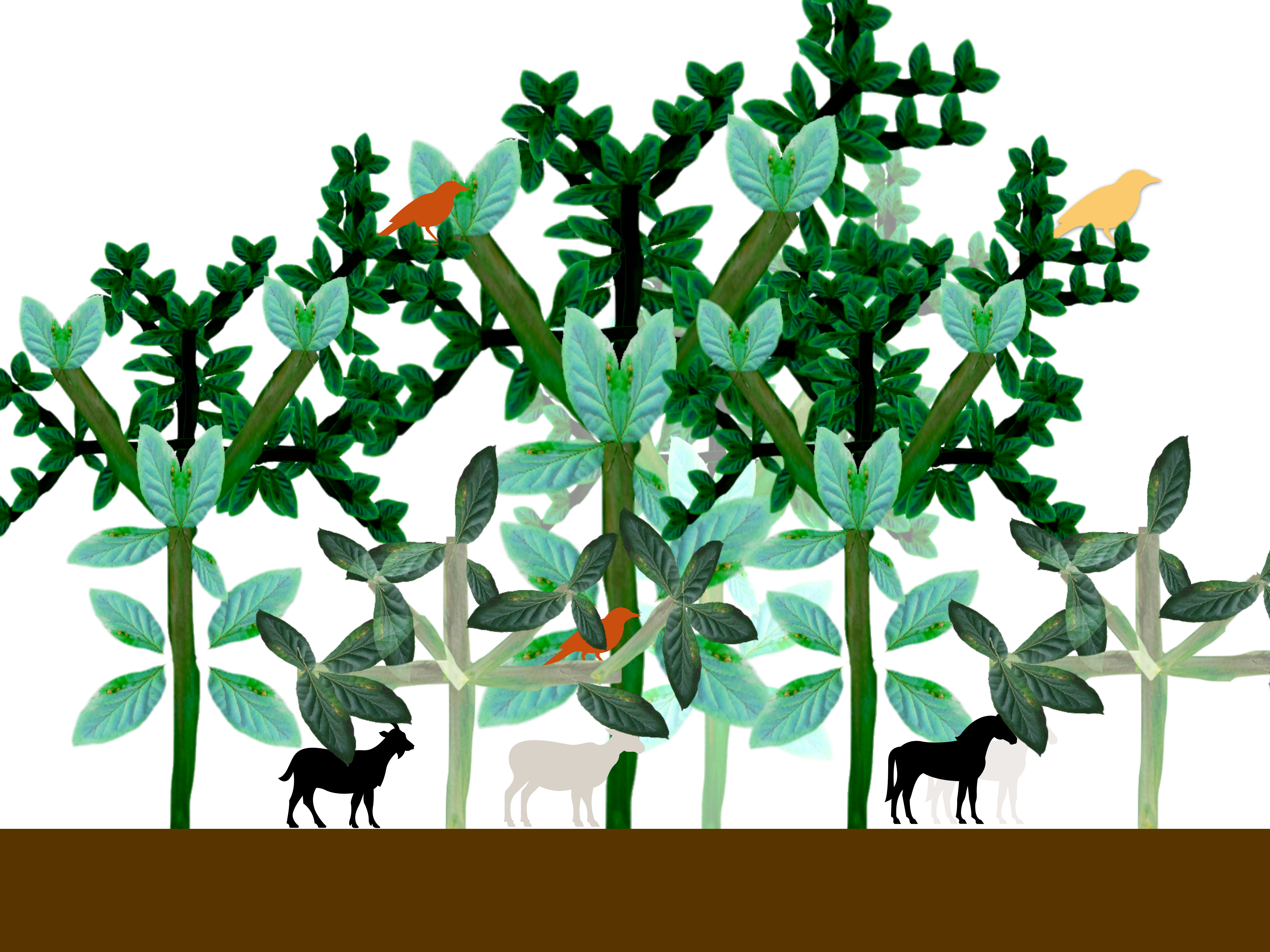


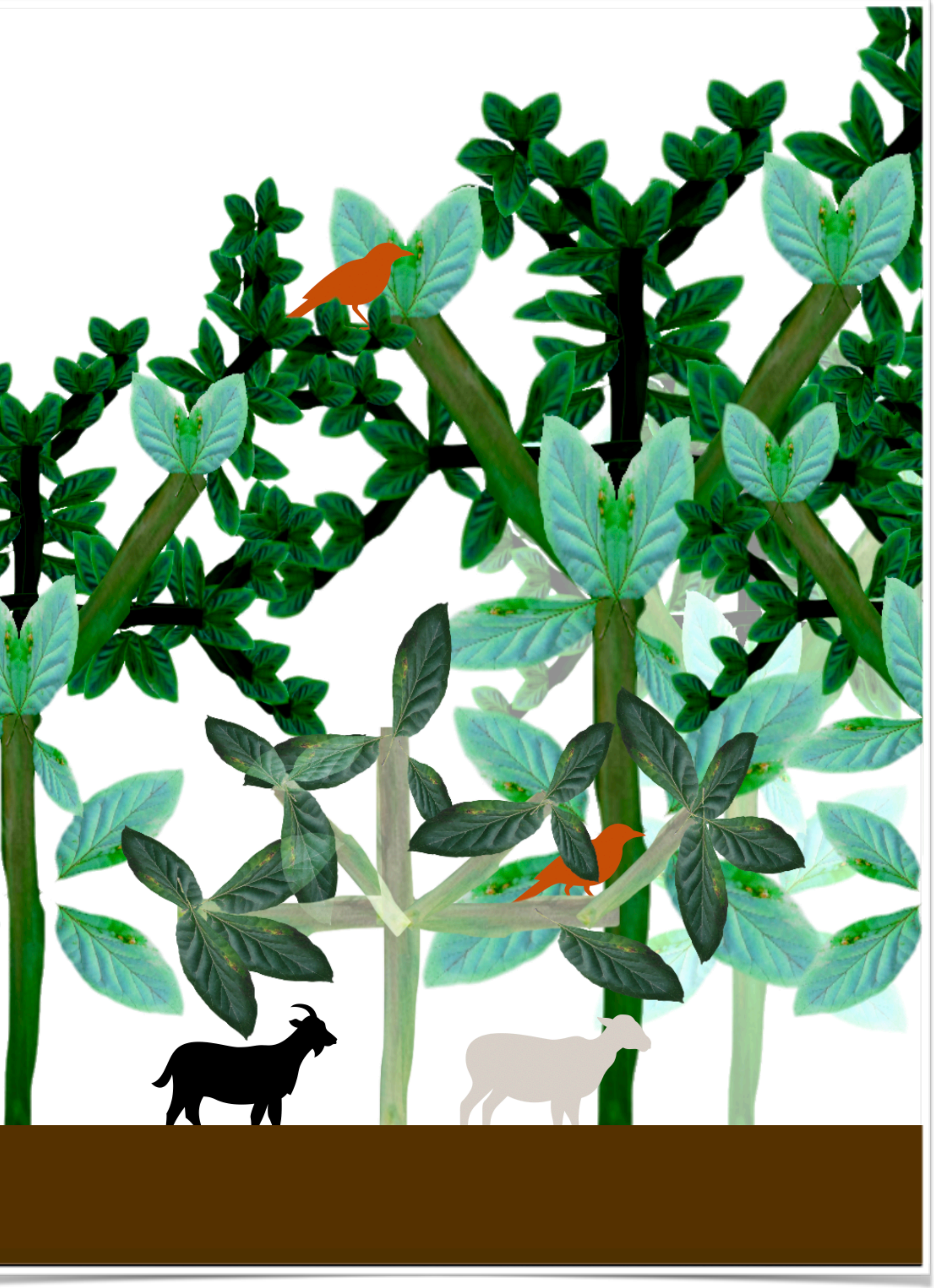












Conclusion

This presentation has saw the face of true environment builtin by digital making of trees with some certainty of realism. This is just a view on the success of digital making process in composing a 2d plant of flower garnishing and awesomeness.